[LR77 LR105]

The Natural Resources Committee met at 9:00 a.m. on Tuesday, August 21, 2007 in the Scottsbluff Room at Chadron State College, Chadron, Nebraska, for the purpose of conducting a public hearing on LR77, and LR105. Senators present: LeRoy Louden, Chairperson; Carol Hudkins, Vice Chairperson; Mark Christensen; Annette Dubas; Deb Fischer; Gail Kopplin; Norm Wallman; and John Harms. Senators absent: Tom Carlson.

SENATOR LOUDEN: (RECORDER MALFUNCTION--SOME RECORDING LOST)...Natural Resources Committee. And at the present time, I'll introduce the committee members here today with us, and I think we have a full turnout of them. To my right is Norm Wallman, from Cortland; next to him is Gail Kopplin, from Gretna; to my left is Carol Hudkins, from Malcolm, Vice Chairman of the committee; Senator Deb Fischer, from Valentine; Senator Mark Christensen, from Imperial; and our guest with us today, guest senator is Senator John Harms, from Scottsbluff. Some of the staff members: Jody Gittins, sitting at the table, is legal counsel for the committee; Barb Koehlmoos is the committee clerk; and my administrative aide is Cynthia Payne...Monroe (laughter). I always make one mistake someplace. That was just one. And anyway, some of the agency people here today is Jay Ringenberg and Carla Felix from the Department of Environmental Quality. With that, I would ask that you put your cell phones all on vibrate or something so that they don't interfere with the testimony and microphones. And those wishing to testify on a resolution should come to the front of the room when that resolution is to be heard. As someone finishes testifying, the next person should move immediately into the chair at the table. The green sign-in sheets for testifiers are on the table and need to be completed by all people wishing to testify, including senators and staff introducing resolutions. If you are testifying on more than one resolution, you need to submit a form for each resolution. Please complete the form prior to coming up to testify. When you come up to testify, place the form in the box on the witness table. Do not turn the form in before you actually testify. Please print, and it is important to complete the form in its entirety. If our transcribers have questions about

your testimony, they use this information to contact you. If you do not wish to testify but would like your name entered into the official record as being present at the hearing, please raise your hand and we will circulate a sheet for you to sign. This list will be part of the official record of the hearing. As you begin your testimony, state your name and spell it for the record, even if it is an easy name. Please keep your testimony concise and try not to repeat what someone else has covered. If there are large numbers of people to testify, it may be necessary to place time limits on testimony. If you have handout material, give it to the staff, and they will circulate it to the committee. If you do not choose to testify, you may submit comments in writing and have them read into the official record. No vocal display of support or opposition to a resolution will be tolerated. And please relax and try not to be nervous. With that, counsel Gittins will introduce LR77, Senator Preister's interim study on recycling electronic waste.

JODY GITTINS: (Exhibit 1) Good morning, senators. My name is Jody Gittins, J-o-d-y G-i-t-t-i-n-s. I'm committee counsel for the Natural Resources Committee and introducing LR77 on behalf of Senator Don Preister, who could no be with us today. The purpose of the study is to examine the issue of electronic waste recycling in Nebraska, with the goal of adopting legislation to establish an electronic recycling waste program. In your books before you, you have copies of LB583, which Senator Preister introduced last year as AM55 to his recycling bill. Also at the end of that descriptive of the bill itself are the list of proponents, opponents, and neutral testimony at the time of that hearing. Senator Preister's written remarks are to be part of the official record of the hearing. In the U.S., approximately 400 million units are scrapped each year of consumer electronics, according to the recycling industry experts. Discarded computers, monitors, televisions, and other consumer electronics (referred to as e-waste) are the fastest growing portion of our waste stream--even though according to the EPA our overall municipal waste stream volume is declining. Computer disassembly (recycling) can provide raw materials and reduced waste, thus extending the lives of our landfills. Rapid advances in technology mean that electronic products are becoming obsolete more quickly. This coupled with increased sales in consumer electronics means that more

products are being disposed of. It is estimated in 2007 there will be a 10 percent increase from 2006 in personal computer sales alone in the U.S. This means that increasing volumes of e-waste are ending up in our landfills and incinerators. In February 2009 the volume of e-waste will increase significantly due to the mandated transition to digital television. The result is that consumers will soon be dumping large numbers of old TVs that can't receive the new digital-only signals. The EPA estimated that in 2005 the U.S. generated 2.6 million tons of e-waste, but only 12.5 percent of that was collected for recycling. The other 87 percent went to landfills and incinerators. These numbers don't include the millions of stockpiled computers, monitors, and TVs which are stored in basements, garages, offices, closets, and homes awaiting a viable recycling option. Hewlett-Packard estimates that at least 68 percent of consumers stockpile used or unwanted computers in their homes, this doesn't include the televisions. At present, the cost and responsibility of managing discarded computers and electronics falls on taxpayers and local governments. Most manufacturers in the U.S. do not take responsibility for the management of products at the end of their useful life. Despite a number of bills introduced in Congress, the federal government has failed to enact legislation to...for the management of e-waste. To date, nine states have enacted legislation to establish programs for e-waste recycling. There are two general legislative policy approaches to address the problem of e-waste recycling. One is referred to as the "Advanced Recycling Fee", better known as ARF. Under this model, consumers pay a fee to the retailer when they buy a product, and the retailer forwards the fee to the state where it is used to reimburse recyclers. Under this approach only consumers pay--the manufacturers are off the hook completely for any responsibility or cost. The policy approach is known as the "Producer Takeback" or "Extended Producer Liability". It requires the manufacturer to take responsibility for the safe management of their products rather than placing the responsibility on consumer or governmental entities. There are advantages to this policy approach. When manufacturers take responsibility for recycling their own products they use safer materials in the production process; consumer fewer materials in the production process; design the product to last longer and be more useful; and are motivated to keep waste costs down. Since 2001,

five bills have been introduced to address the e-waste problem and there have been seven interim studies conducted. In this process, interested parties have been identified and have been assembled to discuss and address each interest's concerns and perspective. These interest include: retailers, municipalities, landfill owners, nonprofit organizations such as Goodwill, electronic repair businesses who are also left with many computers and televisions (that consumers will not pay to repair and abandon), e-waste recyclers, Waste Cap (which provides e-waste disposal opportunities for businesses and not households, and the Nebraska State Recycling Association. There is a general consensus among these interest that the "Producer Takeback" model is the best option to accomplish e-waste recycling. In conclusion, a systematic statewide solution needs to be put in place to make convenient e-waste recycling available to all Nebraska citizens. In addition, legitimate e-waste recycling businesses need to be identified and standards established for e-waste recyclers to provide assurances that e-waste is being properly managed. I encourage the committee to move forward in implementing legislation to establish a Producer Responsibility statewide system. Thank you. [LR77]

SENATOR LOUDEN: Questions for counsel? Seeing none, thank you, Jody. First testifier. Don't be bashful. [LR77]

PASHA GONZALEZ: Hello. [LR77]

SENATOR LOUDEN: Thank you. [LR77]

PASHA GONZALEZ: (Exhibit 2) I'd like to introduce myself as Pasha Korber-Gonzalez. This is my unofficial uniform, and I am here as a proponent for the bill. I represent Keep Alliance Beautiful, from Alliance, Nebraska, but also just an individual concerned citizen who strongly believes in and supports recycling efforts whenever possible and any way available. [LR77]

SENATOR LOUDEN: Okay. Can you state your name and spell it for us, please. [LR77]

PASHA GONZALEZ: My first name is Pasha, P as in Peter a-s-h-a, last name Gonzalez, G-o-n-z-a-l-e-z. [LR77]

SENATOR LOUDEN: Thank you. [LR77]

PASHA GONZALEZ: I am the recycling coordinator for Keep Alliance Beautiful, and we have a small population of about 8,800. And it doesn't have a very large business base in terms of electronic suppliers and big cap stores, things like that, where everybody can go out and buy things. However, we still have a population that consumes and uses a lot of cell phones, everybody has a computer, MP3 players, a lot of electronics that go through even the small towns, not just the large towns. A lot of facts and figures have been presented to you already about the e-waste that has been generated, that will be generated and is currently a generation that we're dealing with today and trying to figure out how to dispose of it properly. Just a few other facts that I don't necessarily want to bore you with but are quite astonishing. The cathode ray tube in TV and computer monitors contains up to eight pounds of lead, which is a known toxic material; and the monitor glass itself, aside from the cathode ray tube, can contain up to 20 percent lead. When that glass is crushed, especially in landfills, it has the possibility and potential to leach into soils. But one thing that concerns me, being a resident of western Nebraska and the Panhandle, is our water source comes aquifer, which is underground. And so not only does that lead have the potential to leach into the soil from landfills, but leach into my water supply. And if I'm consuming something that is known to toxic, that's very upsetting and, you know, worrisome to me, and also a risk to my health and my family. Also, the other...there's over 100 known different materials that are contained in e-waste and electronic equipment. Mercury is also something else that we should be concerned about, again could potentially leach into, not just the soil but out here in western Nebraska my aquifer, my water aquifer. By 2007 it's been estimated that 6.32 billion pounds of plastic, just plastic alone, not even the toxic materials, and 1.58 billion

pounds of lead, which is toxic, would be generated by e-waste by 2007. And that was a figure that came from the Silicon Valley Toxic Coalition. That actually was figured out or developed, estimated in early 2002. So here we are at 2007. If these numbers are accurate, I don't...haven't seen if the Silicon Valley Toxic Coalition has gone back to prove those numbers. But my estimation, by the electronics we use and consume, is that it's probably greater than those values that were estimated or predicted in 2002. Ever since 2004, Keep Alliance Beautiful has been participated in an electronics recycling event. And we initially started doing this in partnership with Scottsbluff. Scottsbluff is about an hour away from Alliance. And what we would do is hold our own event in Alliance, for our citizens, and then rent U-Haul trailers to haul it over to Scottsbluff, combine it with their e-waste that was collected, and they would then pay to have it disposed. Fortunately, the Scottsbluff Environmental Services did not charge us for all of our e-waste collected. They charged us for our monitors, since the monitors and any of the glass TV-type screens would contain more of the toxic material than just some of the general e-waste. Prior to 2005, Keep Alliance Beautiful, unfortunately, did not have good records of the total poundage that we collected, because we only took account for the monitors that we turned in, which is what we were being charged for. Initially, it was $3 a monitor; it went up to $5 a monitor; last year it went up to $7 a monitor. In 2006, we had turned in over 100 monitors that we collected just from Alliance businesses and individual residents alone. In 2005, it was a little over 70 monitors. If I had to estimate the total pounds of e-waste, in addition to the monitors, in 2006, it was approximately about 10,000 pounds. And I used some facts and figures about the total weight a general computer system: the tower, the monitor, keyboard weighed on its own. In 2007, when I came on board with Keep Alliance Beautiful and managed the electronics recycling program, we decided to hold it individually in Alliance, and we paid for our own e-waste hauler to come, who actually came from Omaha, so we paid for transportation costs, brought a big semi-truck trailer out and held our own event for one day. That event we decided to charge for just participation fee. We as an organization were getting charged 30 cents per pound for what we collected. And we had an estimate and a bid from this guy for about 14,000 pounds that we

estimated we could collect. So it was an additional 4,000 from what was estimated the previous year. We actually collected over 15,600 pounds. We had to cut our event short by two hours. We were going to run it from 11 a.m. to 6 p.m., but we had overfilled the capacity and estimate that we were given, so we had to cut our event short by two hours. And we actually had to turn people away, unfortunately. I did bring some pictures of our event. And you can see the big truck-trailer that came through, and I'd be happy to pass these around closer to you. Our public school system alone brought in a trailer that had over 100 monitors themselves and then the additional equipment--the tower, the keyboard, the mouse, things like that. This yellow trailer, when I pass these around to you, was a trailer that we had to say no to and turn away because we had significantly exceeded our hauling amount that we had contracted for. So, unfortunately, that was something we didn't want to say no to, but we had to. Our hands were tied because of that. Although we had asked them and suggested that they hold onto their e-waste until this year when we hold another event, which we have not set a date for yet. Fortunately, Scottsbluff held their event a month after ours, and we also suggested that they could haul their equipment over at their own expense to have it disposed of properly. And I believe they did volunteer to do that and paid for it at their own cost. So there are people who are willing to go that extra length and want to make sure things get disposed of properly. But the amount that we collected last year way exceeded my expectations and I think anybody elses. And we did have a few angry souls that said, you know, you're running it until 6 p.m., and why can't we dispose of this? And unfortunately, our limits were just maxed out. So just a couple other things to think about. A manufacturer takeback model is a great idea. And hopefully, recently you saw that Sony Corporation has started to develop takeback models in 19 different cities nationally. And it's where you come and drop it off, and I believe sometimes they will charge a fee, depending on what it is you want to dispose on what it is you want to dispose of. Some things they take free of charge. And those things are great. And I love Sony, big supporter of that. I have Dell computers. When I recycle my Dell computers I use their recycling, that program. However, for most of the population in western Nebraska here, which is what I represent, we don't have that opportunity. There are no

local Sony drop-off stations. It costs a significant amount of money to send your computer back via mail to Dell. Our local K-Mart, as far as I know, does not take them. Our local Radio Shack, as far as I know, does not take them. Our local Pamida, who does sell some electronics, does not take things back to recycle. So most people won't go the extra effort and mile, and they'll just say, well, if it's not convenient for me, it's going to go in the landfill. And for me, personally, as a neighbor of these citizens, it's disappointing that they wouldn't take a little bit of extra time and energy to dispose of it correctly for the reasons that I shared with you before. Something else just to think about before I close is that the Nebraska Department of Environmental Quality considers a list of items here to be hazardous waste, which are e-waste: color cathode ray tubes and devices that contain color CRTs, cell phones, laptop computers, computer mice, TV remote controls, smoke detectors, circuit board individuals. I don't see a date when this was printed, but I'm guessing now that a lot of things with the Blue Tooth chip in them are probably going to fall under this category. When you pick out just TV remote controls, I personally have four of them sitting on my coffee table (laugh): one for DVD, one for VCR, one for the universal remote, things like that. And I'm sure it's probably similar for most everybody in this room. There's a lot of e-waste out there. And if we just throw it in our landfills, not only will it cost all of us more filling up our landfills faster, but there is so much more risk that we need to be concerned about. And like I said, out here in western Nebraska water supplies come from underground, and that's something that definitely worries me and probably a lot of others in my community. With that, thank you. [LR77]

SENATOR LOUDEN: Thank you. Questions? Senator Dubas. [LR77]

SENATOR DUBAS: Thank you, Senator Louden. Thank you for this great information. Now, you plan on holding another one of these collection events this year? [LR77]

PASHA GONZALEZ: Yes, we do. And the way that I try and fund them every year is through grants, partially through the Nebraska Department of Environmental Quality,

through local partnerships. This last year we partnered with our Taco Johns. And I felt it was a good partnership with them because they offered to us to give taco tokens, which are those wooden nickel-type tokens, if you're familiar with. On their part, it's a great example of reuse and recycling, turning things back over to be used again. But our citizens don't usually participate unless they get something from it, and so that was the incentive I used. A lot of times the funding is not always abundantly available. And if I had to charge $15 per participation, then I would bet that nobody would participate to recycle their electronics, except for myself probably. [LR77]

SENATOR DUBAS: That leads to my next question then. What would you say it costs you to run one of these events? [LR77]

PASHA GONZALEZ: Minimum costs, we were given a break on exceeding our limit this year. But if I had to count that, the minimum cost for this last year's event was $6,000. [LR77]

SENATOR DUBAS: Okay. And you said there was a participation fee? [LR77]

PASHA GONZALEZ: There was a participation fee of $5 per person; it was unlimited dumping, even though my organization was charged 30 cents per pound, we did not carry that per pound cost to the participant. So it was a one-time $5 fee. However, Taco Johns suggested an offer that they could return three taco tokens to each participant. And each taco token was worth approximately $1 value, average. So the total participation cost, out-of-pocket, became $2 to that person. [LR77]

SENATOR DUBAS: Do you anticipate that you would generate this many pounds again? [LR77]

PASHA GONZALEZ: I would anticipate we would increase our pounds this year by at least 10 percent, if not more. And the reason I anticipate that is I get, on average since

this last event in March, three phone calls per month of people asking--I have an old fan, or I'm switching computers. People come up with some really funny things, an old telephone system from some of the businesses where you've got, you know, the 20 different lines. All those types of things can be taken and recycled, at least through our e-hauler, he says he will accept those. And I get some very interesting things. A woman just called me on Thursday about an old air compressor. Unfortunately, that is not considered e-waste, but she was still calling me about, how can I dispose of this properly? [LR77]

SENATOR DUBAS: Thank you very much. [LR77]

PASHA GONZALEZ: Thank you. [LR77]

SENATOR LOUDEN: Other questions? Senator Fischer. [LR77]

SENATOR FISCHER: Thank you, Chairman Louden. Thank you, Mrs. Gonzalez for being here today, appreciate you driving up from Alliance, and appreciate the work you do. You said that they charge for monitors. Do they only charge for monitors? [LR77]

PASHA GONZALEZ: The past couple years, the way the program was run through Scottsbluff, when we kind of piggybacked on their program, they were being charged for monitors, so they carried that cost through directly to us. When we contracted with our own hauler, this last year, in 2007, he just charged by the pound, whether it was a monitor, whether it was a keyboard, whether it was a telephone, it didn't matter. So that changed our charging approach to the participants this year in which we decided, instead of getting a scale and taking all this extra time to figure out how much are you really bringing in, you know, if you brought a monitor, it didn't matter if it was one monitor or the whole computer system or a box full of extras, it was just a $5 participation fee. [LR77]

SENATOR FISCHER: Can you tell me what happens to e-waste? You collected in Alliance. [LR77]

PASHA GONZALEZ: Um-hum. [LR77]

SENATOR FISCHER: You fill up the trucks, they haul it where and what do they do with it? [LR77]

PASHA GONZALEZ: Our particular hauler takes it back to Omaha and he's got a large warehouse. I, personally, have not seen it, but I, of course, grilled him with all the questions: Well, where does it go? What do you do? Do you break it down? Does somebody else break it down? And he was quite willing to share his information. He's been doing this since the seventies, I believe. And he has a number of different material buyers, if you will, that call him and say: this is what I'm looking for, or they know what he generates on a regular basis and set up a contract. So if somebody is looking for the...and I'm not even going to get the terms right, but the silicone or hard drives, the mother boards of computers for whatever material they take from there, then he doesn't always break them down, unless that's part of their contract for him to break them down in Omaha. But what he'll do is collect all of the towers or the laptops that contain that particular mother board or hardware that the material buyer is looking for and he ships it all to them. And then from there they have their process where they take it apart, tear it down and collect what they want from it. And I said, well, how do you feel if some of these people just take what they want and throw the rest in the landfill? Do you monitor that? He said, I can't monitor that particularly, but he does screen who he sells things to. And he has had a couple people, in past years, that he's turned away because he understands or has audited their process just for his knowledge, that they'll take what they want and throw to the landfill. And if he finds any evidence or trace of that or hint that that's what their intention is, he does not contract with them. [LR77]

SENATOR FISCHER: So this...all of these old computers and cell phones and

everything, is it your understanding that most of these recyclers then they just store everything, hoping somebody is going to use a component out of them someday? And aren't they going to run out of storage space? [LR77]

PASHA GONZALEZ: No, at least with the particular hauler that I worked with he has more than enough room because things are constantly moving in and out. And he was so willing to take our excess that we generated, even though we stopped it two hours early, I think four hours into the event we had hit our 14,000 pounds, and we ran it another two hours and then stopped two hours early, he says that he was more than willing to take it, (one) because of his own moral agenda and belief in this that he wants to make sure it gets disposed of properly but, (two) he has enough room in his warehouse because he turns things over so quickly that it was just to his benefit to take more than what we contracted. And the more he can haul back the more revenue in the end it will be for his business. [LR77]

SENATOR FISCHER: Are you concerned at all with privacy issues? I don't know enough about this. But if somebody is going to recycle their hard drive, aren't there some unscrupulous people out there who might get ahold of that and get information,... [LR77]

PASHA GONZALEZ: Um-hum. [LR77]

SENATOR FISCHER: ...even with your cell phones? [LR77]

PASHA GONZALEZ: Absolutely. I asked... [LR77]

SENATOR FISCHER: How do you protect individuals against that? [LR77]

PASHA GONZALEZ: Um-hum. I asked the hauler about this, too. I had one particular business that chose not to participate, an accounting firm, because of the sensitivity of

the information. I had offered to them, and it was advised to us by our e-waste hauler, that anybody who brings their computers, cell phones to us should be erased prior to. This particular business didn't have the time to do it. I contracted with them to make a deal and said, you know, I'll come in and erase it for you, and I have the programs to do that just for my own personal use, to wipe out all this information. And people will tell you, well, you can use this program and it wipes it out once, but the really, really good hackers or unscrupulous people, if you will, will go in and they can find deep down and dig into it. There are programs that you run three or four times to do that. And so I made sure, in the trust of the partnership that I was willing to make with this firm, that I wasn't trying to, you know, upset them or hurt them in any way. So there are programs that you can use to do that. Unfortunately, they chose not to participate with me for whatever reason, but I'll hopefully get them next year. But the e-hauler said that he also will run these programs, and he contracts with other firms. How it happens is whoever is coming in to take which ever particular item also runs those programs, too. And this is his own auditing process of who he contracts with and who he doesn't. And his warehouse and materials are not open to the public. They're in a very secure environment. They're monitored with an on-sight security system. So somebody can't come in and load up a trailer full of monitors, like you're seeing in the pictures, or hard drives and pull them away and steal all this information. [LR77]

SENATOR FISCHER: Okay. One last question. How do you want this paid for? Do you want the manufacturers to have to pay? Do you want to keep going like we're going, you know? [LR77]

PASHA GONZALEZ: Um-hum. [LR77]

SENATOR FISCHER: This is a study. I guess, I'm looking at how are we going to pay for it? [LR77]

PASHA GONZALEZ: My ultimate dream would be that the education is out there, that

each individual finds it within their heart the reasoning to pay for it out-of-pocket. The second most ideal way is to have manufacturers pay for it, they are the ones that are putting and generating that future waste out there. The manufacturers are going to turn it around to us consumers anyway and put that extra fee on. So either way it's going to come out of our pockets or my pocket in the long run. To have some sort of an additional fee or tax put onto the manufacturers will help the manufacturers to educate their consumers that this is what needs to happen in the long run. So that's probably the most realistic approach in terms of my answer to you. [LR77]

SENATOR FISCHER: Okay, thank you. [LR77]

PASHA GONZALEZ: Okay. [LR77]

SENATOR LOUDEN: Other questions? Senator Kopplin. [LR77]

SENATOR KOPPLIN: Thank you very much. Actually, Senator Fischer did a good job of asking what was on my mind. But I want to follow up a little bit more. When the company comes to buy or pickup, whatever you want to say, all of this material and take it back to his warehouse, he certainly doesn't keep it all. So he has to use a landfill somewhere to get rid of it. Would that be correct? [LR77]

PASHA GONZALEZ: I don't know. I don't know the official answer. The way he had explained it to me is that what comes from his warehouse does not go into the landfill. So once it's out of his hands, when somebody buys his materials, as I had stated, I understand that he audits his potential buyers. Now,... [LR77]

SENATOR KOPPLIN: But does he then sell them...if I bring my old computer in, he only really wants one part of it, the mother board or whatever. Does he sell the whole thing to somebody new? Or does he remove the mother board and trash can the rest? [LR77]

PASHA GONZALEZ: Okay. Let's back up a little bit. The e-hauler that I contract with takes everything. And he will sell the waste to whoever is interested in the materials he has. Sometimes his contractors or buyers just want the mother board, and their contract may state: all I want to receive from you is the mother board, in which case he would have to break down those components to sell him the mother board. Sometimes his buyers will contract: we want the mother board, but we will buy the whole component, and they will haul it and then break it down for the pieces and parts that they want on their premises. From there, once it's in their ownership and on their site, there is no monitoring from my e-hauler, as far as I know, except before he enters into a contract he does a little bit of investigation--are you going to break it down and dump everything else in the waste? Are you going to break it down and recycle the plastic that you don't want or recycle the glass that you don't want to get to the part that you do want? [LR77]

SENATOR KOPPLIN: Okay, thank you. [LR77]

SENATOR LOUDEN: Other questions? Yes, I have some. You're just talking about computer monitors? There's no television sets or anything? [LR77]

PASHA GONZALEZ: Our hauler will not take television sets and large appliances because it increases the area and the volume that he has to haul, which means he can't take as much on the true electronic side, if you classify electronic waste versus appliance waste. It's two different things. [LR77]

SENATOR LOUDEN: Okay. And that would...part of it would be because there is probably not much value in a used television set? [LR77]

PASHA GONZALEZ: Probably not. [LR77]

SENATOR LOUDEN: Probably...okay. Has anyone approached you on how to get rid of old televisions or anything on Keep Alliance Beautiful? [LR77]

PASHA GONZALEZ: They have. And there is one gentleman in our small town who specializes in refurbishing old televisions and old transistor radios. And so we always send these people to him as a contact, (one) if they want their television set repaired; or (two) if they just want to get rid of it, usually Mr. Martin will buy it from them, repair it, and he does his own thing. I don't believe that he chooses to throw everything in the landfill, unless it absolutely is not repairable. But at that point there are no other recycling outlets in Alliance or other means that they could send those types of things. [LR77]

SENATOR LOUDEN: Not for television sets. [LR77]

PASHA GONZALEZ: Um-hum. [LR77]

SENATOR LOUDEN: Because see what, in another year or so why you got to have a different kind of television if you want TV. And this is what our problem is, we think there's going to be a bunch of them out there pretty quick. And this is part of that. [LR77]

PASHA GONZALEZ: Absolutely. And that's something that for my next year's electronics event I do have to think about, because my current e-hauler does not...is not interested in taking TVs, particularly because of the volume. So I have to ask myself, do I need to contract with somebody else? Do I need to find an additional means and additional funds to handle this e-waste or is it all going to go in the landfill? And then, how does my city respond to that large volume? [LR77]

SENATOR LOUDEN: Where...have you...do you have any contacts for the used televisions? [LR77]

PASHA GONZALEZ: Currently no, besides the local guy that we work with. [LR77]

SENATOR LOUDEN: Okay. And that's just a small scale. [LR77]

PASHA GONZALEZ: And we don't work with him on a formal basis, he's just known around Alliance as Mr. Martin, the guy who will fix old TVs and radios, so... [LR77]

SENATOR LOUDEN: Um-hum. Why do you take them to Omaha? Is there anything like around Denver, anyplace like that? [LR77]

PASHA GONZALEZ: There is, but part of the stipulations with NDEQ funding that we get is to contract with state suppliers, Nebraska state suppliers first. Transportationwise, cost of gas and fuel and convenience, Denver makes more sense for the Panhandle here. But it's out-of-state. [LR77]

SENATOR LOUDEN: You're telling me in order to get your grant money you've got to do business with Nebraska recyclers, because the DEQ states that? [LR77]

PASHA GONZALEZ: It's state money, yeah, um-hum. [LR77]

SENATOR LOUDEN: Okay, because I've been told that that wasn't correct. But we'll find out today. [LR77]

PASHA GONZALEZ: Well, and we...they always suggest to start there. On a rubber tire mulch program that we ran, when you get bids, you have to, of course, go for the lowest bid. But you have to get bids from local or state owned providers or suppliers. The other stipulation for this particular rubber tire mulch grant that we got was that the tires that are being used, whoever the manufacturer is, whether in the state of Nebraska or outside the state of Nebraska, can be certified that those tires come from Nebraska or at least a percentage of them. For our program, we found the lowest price from a supplier in Florida. But they could, on paper, state and certify that they do collect scrap tires from all of the states in the country and said particularly from the state of Nebraska.

So that's what qualified us to use an out-of-state supplier for that program. [LR77]

SENATOR LOUDEN: This 30 cents a pound, that's what you have to pay to have it hauled off? [LR77]

PASHA GONZALEZ: Yes. [LR77]

SENATOR LOUDEN: And is...have you contacted other recyclers anyplace? I mean, is that the going price or who grabbed... [LR77]

PASHA GONZALEZ: That was the lowest price. We got, again in accordance with our grant guidelines, we got three bids on it, and the lowest bid was the 30 cents per pound, which we had to go to...or go with, and they were from Omaha. [LR77]

SENATOR LOUDEN: Um-hum. Is there any reasoning how come it's 30 cents a pound? I mean is that the value or is that what he thinks he can get out of you or that's the cheapest they can do it for or I mean how do they arrive at 30 cents a pound? [LR77]

PASHA GONZALEZ: You know, that's a good question for him. I didn't question it, (laughter) because it was the lowest for me. I would assume, as an educated guess, that it's kind of the going market rate. He does try to get some of that money to count for his transportation costs. He did stay in a hotel overnight in Alliance, driving all the way from Omaha, to cover his costs to be able to haul this. [LR77]

SENATOR LOUDEN: Okay. Other questions for Pasha? Seeing none, thank you. Thanks for coming and testifying, giving us this information. [LR77]

PASHA GONZALEZ: Okay. Thank you. Okay. [LR77]

SENATOR LOUDEN: Next testifier. [LR77]

JAY RINGENBERG: (Exhibits 3,4,5) Good morning, Senator Louden, members of the Natural Resource Committee. My name is Jay Ringenberg, that's J-a-y R-i-n-g-e-n-b-e-r-g, the deputy director of Nebraska Department of Environmental Quality, here to hopefully answer a few questions as well as bring you up-to-date on what the agencies activities are, particularly right here in the electronic waste arena. I have a couple handouts that maybe will go to some of the questions that the previous speaker had relating to grants and some of those things. [LR77]

SENATOR LOUDEN: You want those handed out now? [LR77]

JAY RINGENBERG: Yeah, I think we'll go ahead and hand these out now. Our waste administrator, Dave Haldeman, was going to do the testimony today. He had a family medical issue to deal with today. So I'm filling in for him. But the testimony that we have is really related to two areas. What are we doing in relationship to the grant programs; and two being, what are the other states out there currently at? Senator Preister's testimony talked about nine states, and I have information on eight of them. It talks about policies and what direction they went, who pays, and some of those type of things. Programs, nationally, are kind of in their infancy. I'd begin to say DEQ has two grant programs where we provide financial assistance and support for electronic recycling. These are the Waste Reduction and Recycling Incentives Grant, and the Litter Reduction and Recycling Grant Program. We provided funds for protects that ranged from purchase of recycling equipment to subsidizing electronics collection events. And grant recipients have included private businesses, not-for-profit organizations and local government. The handout I gave you, the one that has a yellow...I mean, excuse me, the other one that's the long chart is the grants from 2003 through 2007. When you look at these, I would caution you, some...there's electronic...each one of these have some form of electronic collection or recycling and they also may include other items. As an example would be the one in 2003, the very first line, $102,895, that's for the Grand Island Area Cleanup. That was for a household

hazardous waste that also included electronic waste and it covered 25 counties. So it gives you some concept of what it may cost to do some pickups, a one-day events: $100,000 to cover the middle part of the state. Then you go down through them. The other ones of note are the electronic recyclers, if you look at the top of 2004, the first two items are the recyclers in the eastern part of the state, electronic recyclers, and Five Rivers. And then in 2005 it talks about the computers for Africa, as well as some of the Keep Nebraska Beautiful affiliates and some of their collections. So it kind of covers the gamut. In 2007 you see more of them. We're doing more and more. We're trying to encourage, with our grant program, recycling of electronics. In fact, most of our household hazardous waste events, if they don't take electronic waste, they probably are not going to get the grant. And we have been, I suppose, force feeding those a little bit. But we have spent considerable money. If you look at the total for those times, $1.66 million dollars on those type of events, from 2003 through 2007. The other thing that we have done to encourage electronic waste (sic), we have amended our regulations this year to make it easier to recycle the cathode ray tubes, CRTs, home computers. Those...the glass in the CRTs contains a lot of lead and is currently classified as hazardous waste if it's disposed of primarily from commercial and industrial sources. They have been...so you have all the management requirements from hazardous waste on the CRTs. The regs have been changed to encourage recycling by saying EPA, in January of this year, changed their rules that provided, in an exclusion, that if the CRTs are recycled or going to recycling they are excluded from hazardous waste regs, which makes them easier to handle, cheaper, particularly from a transportation standpoint as well as recordkeeping. DEQ proposed changes to our regs in March of this year. The Environmental Quality Council approved them; the Governor has signed them and they did go into effect last week. And it's to be seen how well they work, but for sure it has reduced one of the impediments to recycling on the e-waste side. The other handout I have is the one that has the yellow on it. This is the latest printout of the states that have e-waste programs, that would be Maine, California, Maryland, Washington State, Minnesota, Texas, Oregon, and Connecticut. Goes down through the typical questions. This is from the computer takeback campaign. They have

a web site and they keep this up-to-date. And I think this is probably one of the areas of resource for the committee that you can go look at. The options are kind of all over. It kind of goes to the two different varieties that Senator Preister did talk about in his letter--the producer responsibility or the advance payment. Many of these programs are difference in complexity, both from an administration standpoint, as well as who pays and the cost. Many of them only take TVs and CRTs, which are the two issues, they're really going after the glass, the lead-containing glass. And most do not take the CPU units, keyboards, any of that type of stuff. As well as who gets to recycle them for free, many of them consumers can recycle them for free; commercial and industrial have to pay. So it depends on the approach. These, I suppose, is a good resource to give you some goals. Nebraska's...the current holdover bill, Senator Preister's is modeled after the Minnesota bill. And it has some of the features of that as well as some other options as well in it. So if you want to look at one, that's probably one of them to look at. I will say the Minnesota statute is very complicated. I, personally, had trouble going through it, and Dave Haldeman did, too. I asked him to go through it and calculate what would be the cost, because they have some formulas in there based on how many computers you sold in a state the year before, what you owe this year as a manufacturer. It seemed quite cumbersome. Minnesota is kind of known for developing programs along those kind of lines. So that's kind of where the landscape is at, at this point. I think in closing, the department is more than willing to work with the committee. For sure there is a national e-waste issue to be dealt with. I kind of equate it a little bit to this is kind of like the electronic version of tires. Some of the very same issues are here. It's much easier to recycle in the larger cities--Lincoln and Omaha. When you get in the rural areas of the state you have transportation issues, you have increased costs, you have all the other things that mirror some of our tire issues, as well as who pays. So I think that this committee for sure has had lots of experience with those issues. So we would be glad to talk about those as we go. And with that, I would just...I would also offer...we're very...the department is very active on the national scene in relationship to waste issues. I'm currently the vice chair of the Environmental Council of States Waste Committee, and that is the group of all the state directors and deputy directors around

the country. We have been encouraging the EPA, at the national level, to do a national e-waste program so that it is somewhat uniform amongst the states. That's one of the things that's going on now. As you see you've got eight on the chart. Got another one, you have nine states now. The producers and the manufacturers are very concerned they're going to end up with 52 different programs to deal with. So they are indeed lobbying Congress very hard for a national e-waste program. What that's going to look like, we really don't know, but it goes a little bit toward who pays, who manages it, who's responsible for it? The same kind of broad policy questions that have been raised here. So with that, I'll be glad to try to answer any questions the committee has. [LR77]

SENATOR LOUDEN: Questions for Jay? Senator Fischer. [LR77]

SENATOR FISCHER: Thank you, Chairman Louden. Thank you, Mr. Ringenberg, for being here today; appreciate it. You mentioned...and on this handout there is a number of examples on how the program is paid for and the type of program. [LR77]

JAY RINGENBERG: Um-hum. [LR77]

SENATOR FISCHER: On all of these states, except California, it's the producer responsibility. [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR FISCHER: In California it's the Advanced Recycling Fee. [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR FISCHER: Which is a consumer fee. [LR77]

JAY RINGENBERG: Um-hum. [LR77]

SENATOR FISCHER: That doesn't sound like a bad idea to me, even though it did come out of California. [LR77]

JAY RINGENBERG: Well,... [LR77]

SENATOR FISCHER: (Laugh) And in Senator Preister's testimony, you know, he talks about that, too, that you know only the consumers pay, and he says the manufacturers are off the hook. To me it seems that's the easiest way to go would be through this Advance Recycling Fee. So I'd like your opinion on that. And then do you think we, as a state, need to go after the manufacturers, in your neutral position? [LR77]

JAY RINGENBERG: Well, I think we have testified on a number of occasions, as well as a position that we do think...we like the product stewardship approach from the manufacturers, that, you know, if you're going to sell me a computer, you've got to be willing to take it back. I do think there is a big movement in... [LR77]

SENATOR FISCHER: But how do...excuse me. How do we get it back to them? I throw away the boxes, you know, when I buy a computer or whatever. I don't want to store that stuff, I throw it away. I'm not going to be able to box it up... [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR FISCHER: ...in 20 years, when I get a new computer. [LR77]

JAY RINGENBERG: Right. And the program is not there to give it back to them. I mean they are designed to see it to you, not to take it back. [LR77]

SENATOR FISCHER: But that's a hassle for the consumer, I think. [LR77]

JAY RINGENBERG: It is. And I do...it depends on, I think, the large manufacturers, the HP Model, what is normally referred to, and that includes Dell, HP, Microsoft, all the big manufacturers, they tend to like even the Product Stewardship one. I think they're willing to start taking them back and developing programs to do that. The problem is there's a lot of small people who probably can't do that, and they're afraid they're going to get squeezed out of the marketplace by the big manufacturers. And I think that's one of the...and in fact at the last hearing you had, one of the individuals from Lincoln who manufacturers computers talked, which really addressed that question. I tend to go with the...that the Product Stewardship is...and that's not only for computers, but it's lots of other products it's the same way, whether it's refrigerators or white goods or whatever, they really have the ability to do it. They're the ones who can actually recycle it, reuse some of it back in the manufacturing process, some of those kind of things. That's kind of where we have always been on that side. [LR77]

SENATOR FISCHER: Does any state do that? [LR77]

JAY RINGENBERG: The easier way to collect the money is have them, when you buy the computer, it costs you five bucks, just like we do with tires in Nebraska. If you buy a new tire, you have a tire fee that goes into the fund. I know California has a very large administrative program to collect the fee and to manage all the money and do that, which is one of our concerns. I'm not sure the state of Nebraska, at least from the administration side, is really not excited about creating a bureaucracy to do that. And I think that's probably the one fallback that...on the consumer fee. [LR77]

SENATOR FISCHER: Does any state have that Product Stewardship Program as a requirement in their state? [LR77]

JAY RINGENBERG: Well, I think that's where most of the states are going, the Product Stewardship from the manufacturers. There is a...this web site that I gave you comes from the Product Stewardship Institute, and they promote product stewardship in all

kinds of arenas, not just electronic waste. In fact, there is a meeting in September, in Chicago, that they are putting on that relates strictly to e-waste for local state governments and legislators to talk about what's going on, what are the options or the policies. And that is coming up. And I imagine somebody from DEQ or at least from the state will attend to listen to part of that. [LR77]

SENATOR FISCHER: Okay. Thank you, Mr. Ringenberg. [LR77]

SENATOR LOUDEN: Are there other questions for Jay? Senator Kopplin. [LR77]

SENATOR KOPPLIN: Thank you, Senator Louden. Jay, I'm just a little bit curious, I guess. Much of the problem with the disposal has to do with toxic materials, such as lead and so on. Are there companies who are actively trying to replace that material with nontoxic material? [LR77]

JAY RINGENBERG: Well, for sure the old CRTs, the big, heavy, glass ones have a whole lot more lead in them than the new flat screen monitors that you see now, just based on the amount of glass that in them. Plus they're making them so they can actually get the glass...get the lead back out of the glass when you crush it up in the new ones. So they are generating them with a lot less toxic material, lot less metals in them, lot less...in the old days they used to have mercury in them, even mercury switches and stuff so the manufacturers are changing as technology changes on computer chips and nanotechnology. All of that is reducing waste as we go. I think the manufacturer is where you get to the product stewardship to have an incentive to try to figure out how to get it out so they can recycle it in different ways. That is happening. [LR77]

SENATOR KOPPLIN: Okay. Thank you. [LR77]

SENATOR LOUDEN: Senator Dubas. [LR77]

SENATOR DUBAS: Thank you, Senator Louden. Thank you, Jay, for your input. Would you say that no matter what route we go as far as funding for e-waste, the consumer ultimately pays it, whether it's up front or the manufacturer passes it on? [LR77]

JAY RINGENBERG: That's Jay's personal belief, anyway. [LR77]

SENATOR DUBAS: I would tend to agree with that, too. And, I guess, based on what the previous testifier stated, especially when we get into the more rural areas where it becomes a little more of a challenge as to how, you know, like Senator Fischer said,... [LR77]

JAY RINGENBERG: Um-hum. [LR77]

SENATOR DUBAS: ...who saves their boxes to send them back to the company? [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR DUBAS: So the challenge is convenience and having access to a simple way to...so, if we're talking about stewardship from the manufacturer, you know, they're basically going to say probably send it back to the company, when that's probably not going to be in reality something that will happen in areas of the state or the country where we don't have access to that. So would our challenge be, in the more rural areas, access to where we can dispose of these? [LR77]

JAY RINGENBERG: Right. I believe if the pattern from all our other recycling activities, tires and others events, our rural areas are our most difficult. In fact, if you look at our grant programs, many times a lot of them we are funding are in rural areas because that is their only option. And we can't get the private sector to go out and do it, because they

got to make a profit, and they can't do it. So we...that's where we tend to try to subsidize those where we can. And the farther east you get in the state, a little easier it is. And there are places, like in Omaha you can take your computer to recyclers and they'll just take them from you. But if you're from Valentine or out here, they're going to charge you to come get it or pick it up or ship it. [LR77]

SENATOR DUBAS: I know I've taken my old computers to a place in Lincoln. I'm in Lincoln a lot, so it easy for me to do that. [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR DUBAS: It's not so easy for other citizens across the state to have that access. [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR DUBAS: So to me that's what I'm seeing in areas of the state and country that don't have access to actual companies, that's where our challenge comes from. [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR DUBAS: And I... [LR77]

JAY RINGENBERG: I do believe there is a mindset changing in the general public that if you can provide them, tell them what to do with it, they will indeed recycle them. They really don't want to throw them away. One is they think they are a problem in the environment from a safety standpoint. They also see some value in it. And I do...we get questions all the time, this is a really good computer, it actually works, but it's too old and what do we do with it? And when we tell them, well, you're going to have to throw it

in the trash, that really doesn't sit well. And I do think that's probably one of our challenges for DEQ for the future is how do we develop that recycle...the other one we're working on, the same kind of event, is the compact fluorescent lights. We have a lot of people come to us and say, what do I do with these? I don't want to throw them in the trash because they have mercury in them. But there's not a lot of good options on recycling. And that's one of them we're working on and looking for grant recipients to handle some of those as well. [LR77]

SENATOR DUBAS: Thank you. [LR77]

SENATOR LOUDEN: Any other questions? I have one Jay. What's this about when they get this grant money they got to spend it in the state? [LR77]

JAY RINGENBERG: (Laugh) If possible, we look for grantees that we give it to that use Nebraska businesses and recyclers so that...because part of our reason for our grant programs is to encourage development of those...that infrastructure to handle it for recycling and reuse. So that is always a priority for using in-state resources. Now, indeed, on the western...like in Scottsbluff and some other states (sic), they probably go to Wyoming or Denver and get some similar services for less money as well as on the Kansas border we have a similar, and around Iowa or South Sioux, some of those. Depends on where the location is at, how we look at those. But there are Nebraska companies that are doing it, and recyclers, that's the ones we want them to use. I mean we'll be really straight up. It probably costs a little bit more. But if we don't do that, we'll end up with no recyclers and it's all going out of state. And then eventually...well, your costs go with that and you have no competition within the state. So we tend to encourage it where we can. But if it's way out of line on the cost side, we're not going to do that. But most of the time that's not the case. [LR77]

SENATOR LOUDEN: In your...is this an agency ruling or... [LR77]

JAY RINGENBERG: That's just the policy position in relationship to grant awards. Grantees can always make their case that that's not the best... [LR77]

SENATOR LOUDEN: Has that been set in statute or does... [LR77]

JAY RINGENBERG: No, not that I...I think there may be some intent language in there that talks about that, if possible or practical you use Nebraska...I think that's in there. I'd have to go look to make sure. But I think that is the policy. There's probably... [LR77]

SENATOR LOUDEN: Now, do you...then when they make out their paperwork for your grant program, the paperwork you send them, do you state in there that if you can find a cheaper place out-of-state, to go ahead and use it? Because this is the complaint I get from some of these people is, we got to ship it to Omaha and it costs us a great deal more money to ship it to Omaha than if we were just shipping it to someplace on the front range or something. [LR77]

JAY RINGENBERG: Yeah, I can...as I say, I can't answer that, Senator. But I will be glad to look at it. But I am sure that if there is somebody in Nebraska that can do it, we're going to try to do that. In their grant app. they can tell us they want to go to Denver versus Omaha. They can make their argument and we have, indeed, done that. Like in our tire recycling grant program we sent lots of tires to Colorado, lots of tires to Kansas. [LR77]

SENATOR LOUDEN: They pretty near all go to Kansas or Colorado, don't they? [LR77]

JAY RINGENBERG: (Laugh) [LR77]

SENATOR LOUDEN: There aren't any tire recyclers in Nebraska anymore after that one moved over into Missouri. [LR77]

JAY RINGENBERG: Yeah, we have just a couple. But most of them are out-of-state. [LR77]

SENATOR LOUDEN: Well, that was because I had this question posed before that we have to use Nebraska recyclers for this e-waste. [LR77]

JAY RINGENBERG: Yeah, we'll be glad to go back and look at that and we'll get you the answer. [LR77]

SENATOR LOUDEN: And if there's a chance that we can make the money go a little farther, I mean, yeah, if the market is there for a Nebraska recycler, he'll be there. If it isn't there, if there's somebody someplace else, it will happen someplace else. [LR77]

JAY RINGENBERG: Yeah, I mean there's nothing wrong with us taking a fresh look, particularly at the western edges here of the state, both in the Panhandle...all across the Panhandle. Okay? [LR77]

SENATOR LOUDEN: And then what about this coming up with these television sets here, and what, by 2009 isn't it that you got the analog or whatever? [LR77]

JAY RINGENBERG: Right, right. Yeah the analog is going away. [LR77]

SENATOR LOUDEN: Now, is there any place that will take these television sets? [LR77]

JAY RINGENBERG: If they are, I do not know. Some of the recyclers in Omaha might be. But most of them are looking for the CRTs at this point. If you see the chart on the other states, most of them are just starting to take TVs right now, just in the last month, nationally. So at this point, I'm sure Nebraska, if they have one, I'll be surprised. [LR77]

SENATOR LOUDEN: Well, I guess, that's my question now. If they are of no value, are we going to take them some place and drive over them with a crawler? (Laugh) And then, you know, push them in a hole or cover them with cement or something like that? If we introduce some type of legislation that we would have say a point-of-sale assessment on a television set, and sure we can gather them. But what do we do with them after we gather them? [LR77]

JAY RINGENBERG: At this point they're going to the landfill, which they can do today on an individual basis. [LR77]

SENATOR LOUDEN: Right. [LR77]

JAY RINGENBERG: You don't have to gather them up, you just throw them away yourself. [LR77]

SENATOR LOUDEN: Um-hum. [LR77]

JAY RINGENBERG: Yeah. [LR77]

SENATOR LOUDEN: And this is what I'm wondering, if there's legislation introduced, we can introduce legislation that they got to be gathered, but you got to have some place to go with them. [LR77]

JAY RINGENBERG: That's correct. [LR77]

SENATOR LOUDEN: And do you have any ideas...I mean, is that far-fetched to run over them with a crawler and dump them in concrete? [LR77]

JAY RINGENBERG: Well, no I think this...I'm sure nationally there are some people starting to do things with televisions, particularly when they look at the volume coming.

When the analog goes away, a lot of people are going to go away from that with high definition and digital coming. I think the jury is still out whether people are going to buy a converter box and use their old television, or they're just going to use that as a reason to get a new one. I don't know. But we'll be glad to get your some stuff on what's going on, nationally, on the televisions. Right now, I think it's far behind, I think, on the computer side. [LR77]

SENATOR LOUDEN: As I looked at this handout you have here, I think, what Maine, California and Maryland, are actually the only ones that are doing it. These other states that you have listed here, some of them, one of them, Minnesota starts in August of this year. [LR77]

JAY RINGENBERG: Right. [LR77]

SENATOR LOUDEN: And Washington State isn't until 2009, Texas 2008, Oregon 2009. I mean, yeah, they passed this legislation, but that don't mean it's worth a hoot. [LR77]

JAY RINGENBERG: (Laugh) That's an observation for sure. Most of them have not really actually done it on the ground yet. California is the one that's been out there the longest, and they have lots of data on how much they're collecting, how much it's costing, all of that. They do indeed have that. The thing about California that scares me a little bit is the fact that they have a very large staff and they have a large administrative program to run it. And that is a concern for the agency, as well as the state. And I don't know... [LR77]

SENATOR LOUDEN: Now, when you say advanced recycling fee, that's point-of-sale cost? [LR77]

JAY RINGENBERG: Point-of-sales. [LR77]

SENATOR LOUDEN: And how much...do you know how much it is for a unit or anything like that? [LR77]

JAY RINGENBERG: I do not know, I don't know. [LR77]

SENATOR LOUDEN: Um-hum. [LR77]

JAY RINGENBERG: If Dave was here, I'm sure he could answer that question. But... [LR77]

SENATOR LOUDEN: Um-hum. And it's just on television sets and monitors is the only thing that they... [LR77]

JAY RINGENBERG: Right, I think that's true. [LR77]

SENATOR LOUDEN: ...that they are concerned with now? [LR77]

JAY RINGENBERG: Um-hum. [LR77]

SENATOR LOUDEN: Um-hum. And they're working on the other parts. Well, this...as I notice this, there's not a lot of states that...we don't have much of a track record yet. So everybody is out there feeling their way around. Is that... [LR77]

JAY RINGENBERG: Yes, I think that's a correct assessment. [LR77]

SENATOR LOUDEN: ...be safe to say? Are you comfortable with a point-of-sale fee, such as our tire program? [LR77]

JAY RINGENBERG: Well, we've been on the other side with product stewardship. I mean the agency from day one has been that product stewardship from the

manufacturer is really the preferred way to go. Even though, as the Senator pointed out, the consumer ultimately pays that somewhere on the price or something, I tend to believe. But... [LR77]

SENATOR LOUDEN: But that would be just on computers. That wouldn't include... [LR77]

JAY RINGENBERG: That's mostly computers. [LR77]

SENATOR LOUDEN: Okay. [LR77]

JAY RINGENBERG: The televisions are a little different. One of the problems with the televisions, a lot of them are not made in the U.S. The manufacturers are in the Far East and other parts of the world. And it's a little hard for us individual states, in particular, to make anybody do anything in China. And I think that is one of the problems with our stewardship on TVs. Most of the computers are made here. Now the components may be made somewhere else, but most of those are made here in the states. That's why I think people tend to look at them differently, that they're going to look at the manufacturers side. [LR77]

SENATOR LOUDEN: Thank you. Any other questions for Jay? Well, thank you, Jay. [LR77]

JAY RINGENBERG: Thank you. [LR77]

SENATOR LOUDEN: Thank you for testifying and thank you for the information. Next testifier. [LR77]

GARY LUND: Good morning, Mr. Chairman. [LR77]

SENATOR LOUDEN: Good morning. [LR77]

GARY LUND: (Exhibit 6) I'm Gary Lund, city of Norfolk. Last name L-u-n-d. I'd like to leave a letter of testimony with you today. I'll speak to those issues. [LR77]

SENATOR LOUDEN: You have those...you want them handed out? [LR77]

GARY LUND: I have one copy I would like in the record today. [LR77]

SENATOR LOUDEN: Okay, yeah, we can pass it around, or I don't know if there's a copying machine close by or not? Did you spell your name, sir? [LR77]

GARY LUND: L-u-n-d is the last name, Gary. [LR77]

SENATOR LOUDEN: Okay. Thank you. [LR77]

GARY LUND: Um-hum. I'd like to speak for the city of Norfolk. We run a transfer station, the Northeast Nebraska Solid Waste Coalition owns the landfill, and the Nebraska Chapter of the Solid Waste Association. The solid waste, landfill, and transfer station professionals generally belong to that organization. I would like to echo the comments that were made by most all of the testifiers this morning. The lack of producer responsibility concept, I understand your arguments for the advanced fee that California is using. But in Norfolk's case we do not have a recycling station, that is provided by private enterprise. I would need to spend $100,000, at least, to provide some kind of a receiving station, handling equipment. We don't dump garbage on the street and expect the city to pick it up for free, and I think that's what we're considering as an alternative to a producer responsibility program. I'm done with my trash, somebody can have it for free. We don't do that with garbage, and I hope we don't think about doing that with computers. It's not the city's responsibility, it's not the county's responsibility. I think that should be funded in advance through whatever equation seems to be working. I think it

should be a nation...as much as possible, should be a nationwide program so all these computer manufacturers don't have, as Jay said, 50 different equations to work with. Again, the February '09 is in front of us. I'd like to see something move ahead there. I would like to refine a statement or expand on a statement made earlier about all of the electronic waste going into a landfill. You will find all of those wastes, all of the lead and mercury in some small quantities, even if you take the electronics out. I do not think we have a looming toxic disaster in our landfills. They are designed for this. I'm in favor of this because it's simply a waste of space. Computer waste with a little regulation imposed on the manufacturers, they will find a way to treat this as a resource rather than as a waste. If there is a problem dealing with lead, they'll figure out a way to take it out. And that responsibility should be placed back on them with this producer responsibility concept. So we would like to see Nebraska join the Minnesota group, I think it's a Mid-States Model that they've been coming up with. We've been kind of shooting at a moving target, I think, over the last couple of years; I would like to see that continue and move ahead on the legislation as soon as we can. So thank you for the opportunity to come out west. I could not make the Lincoln meeting, so I chose to come out here and see the Sandhills. [LR77]

SENATOR LOUDEN: Okay, well thank you for coming this far. And yeah, that is quite a trip here, but it's all down Highway 20, isn't it? [LR77]

GARY LUND: Yes, it is. It's not... [LR77]

SENATOR LOUDEN: So it used to be a great highway, wasn't it? [LR77]

GARY LUND: I'm not going to get lost. [LR77]

SENATOR LOUDEN: Yeah. Questions for Greg (sic)? Senator Kopplin. [LR77]

SENATOR KOPPLIN: Thank you, Senator Louden. You mentioned you don't have the

recycling. And I'm somewhat familiar with your operation up there. When a recycler takes this, there's bound to be a lot of bulk left over. Is that then returned to you? [LR77]

GARY LUND: No. [LR77]

SENATOR KOPPLIN: It does not. [LR77]

GARY LUND: They have to...they are going to...as I understand it, they just grind that machine. And I don't know if there are a lot of them that plug them in and see if they work and see if they can sell them as they are. I don't know if that's happening a lot. I think by the time it makes it to the recycler, that has been done at the schools summer auction or something. When it goes to a recycler, I think it's hit with a spike. Someone asked about the security of the data. I watched a recycling operation in Omaha, and they all had little pick hammers about this long, had a spike on it about that long. That's what they did with the hard drive, they just drove a spike through it and threw it away. So it was not usable, you couldn't put power to it. You can ensure that your data is sound simply by dealing with reputable people. But that is an issue and you need to address: what are you doing with the data? How are you ensuring that it's being destroyed? Once that is all ground, you've got a container of plastic, you've got a container of electronics. And it's being separated. You've got a container of glass, and each of those components has a route to reuse. You don't reuse a computer in its entirety. The plastic might be recycled into more plastic, the lead might be used somewhere else. But all of that, at that point as I understand, is reused, put back into the new product stream somehow. [LR77]

SENATOR KOPPLIN: Okay, thank you. [LR77]

SENATOR LOUDEN: Other questions? Senator Fischer. [LR77]

SENATOR FISCHER: Thank you, Chairman Louden. Thank you, Mr. Lund, for being

here. I travel Highway 20 a lot, too, but I'm going... [LR77]

GARY LUND: The other way. [LR77]

SENATOR FISCHER: ...east most of the time, to Lincoln. So thank you for driving through a large portion of my district to get here. You spoke about that you felt the manufacturers need to take responsibility. That would be the Producer Takeback Program then? [LR77]

GARY LUND: It is...it can be any of the stewardship responsibility programs. It can be a takeback... [LR77]

SENATOR FISCHER: How... [LR77]

GARY LUND: ...or they are assuming responsibility rather than giving it to us. [LR77]

SENATOR FISCHER: How does the manufacturer take responsibility? Senator Dubas spoke earlier, especially in rural Nebraska maybe we buy our computer at a store that's not even in our community. You know, what do we do with it that the manufacturer is going to take responsibility? And even people in communities where they can take it back to the store, how does the manufacturer take responsibility? I'm a little confused on this. Does the store then send it to the manufacturer? Are we going to have to keep the boxes and send it or how does a manufacturer take responsibility? [LR77]

GARY LUND: Through his retail slots, he's got a trucking system and a warehouse system that's already in place. And I think that... [LR77]

SENATOR FISCHER: But the consumer then has to take it to the store where it was purchased. So do we need to keep receipts, a box? I'm looking at the process, how is this going to happen? [LR77]

GARY LUND: As I understand the process, if I decide to buy a Dell computer from Best Buy, if I know I'm going to do that, I will take my Gateway computer to him on that weekend, or perhaps I'll get a receipt the next time I'm in Lincoln that I can take...they owe me one return on a computer and it goes back into the system. How they...you know, one of the concerns is that the local recyclers are going to be cut out of that. And I don't...I can't speak to that. But you're back into their transportation system, into their warehouse, and I think they can make that work that way. They just take responsibility for it. Whatever that cost is it's theirs, they can change that every week of the year, if they want to, and apply it back to the new machines, however that's necessary. [LR77]

SENATOR FISCHER: So the manufacturer doesn't really take responsibility, it would be the retailer takes responsibility? [LR77]

GARY LUND: That's up to the lawyers to define which one is which. [LR77]

SENATOR FISCHER: Oh good. [LR77]

GARY LUND: There's been some discussion about how you define who is who. (Laugh) [LR77]

SENATOR FISCHER: Okay. At our hearing in Lincoln on this bill we had one gentleman, who's a small computer guy who puts them all together. He had concerns with that. [LR77]

GARY LUND: I think he came to the... [LR77]

SENATOR FISCHER: You know, it's going to knock out the small retailers. I guess, I'm thinking it's going to be the retailers responsibility, not the manufacturers. It's going to knock out those small operators, and it's, in my opinion, it's going to benefit places like

Best Buy. [LR77]

GARY LUND: I don't have a Best Buy in Norfolk, I have Connecting Point. And it's nice, they spend most of their time now dealing with viruses and the searching software that's on there now, I can't think of the name of it. But it's...for me, it's nice to spend a little extra money on that, and I can take that machine back there and have it cleaned up and serviced. I think people that are on...in the local system, the small personal retailers have that advantage, and they always will. That would probably be a better question for the small retailers. [LR77]

SENATOR FISCHER: Okay. Thank you. [LR77]

GARY LUND: You're welcome. [LR77]

SENATOR LOUDEN: Questions? Senator Hudkins. [LR77]

SENATOR HUDKINS: Mr. Lund, in the case of your small local retailers, our first computer, oh it was years and years and years ago, the people that we bought it from are no longer in business. What do we do then? [LR77]

GARY LUND: There's two reasons to be concerned about that. One, is what you've just mentioned; and second, I may have two computers at home and I may have a new one that I'm using on my desk. So, obviously, I'm not going to be able to get rid of three computers when I go buy one new one in five or...three, four, five years from now. So there is the backlog. And there has to be something in the system, there has to be some funds collected in the system. And I think me, as a transfer station operator, I will get involved in that, collecting some of this old equipment that's out there, that's not going to be immediately into the system because there's just too much of it, there's too many in garages and basements now. So the equation we come up with has to address that. There has to be some funds. We were talking about a couple thousand dollars, I

believe, in fees for everybody that is doing business. And that was going into a state fund. And you're taxing my memory now. I believe that was going to be used for programs on these old...on the old computer systems. But that's an issue that has to be addressed. [LR77]

SENATOR HUDKINS: Thank you. [LR77]

SENATOR LOUDEN: Other questions? Senator Wallman. [LR77]

SENATOR WALLMAN: Thank you, Senator Louden. Yeah, in concern to this computer producer responsibility, you know, like for batteries, you turn a battery in, you get so much off. So that's producer responsibility. And I realize now some of us have two or three old computers sitting around or cell phones or anything, TVs. You know, let's get this started off. I think we have to have some kind of grant money to collect a lot of that stuff. But after we get this going, and like she said, to collective points, you think that would help if we had like a $10 off if you turn it in? You think something like that would work for computers, like it does for batteries? [LR77]

GARY LUND: I don't believe anybody is talking about that concept right now. And I'd have to think through how that would work. [LR77]

SENATOR WALLMAN: It wouldn't be much, but it would be...at least somebody would have to take it. [LR77]

GARY LUND: Some encourage. I agree with...Jay said earlier that people want to do the right thing. They have two problems with landfilling computers. One is they paid $1,000 for it and they won't admit that it's worthless (laughter), and the second point is the environmental issue, they just...they want to do the right thing. They know that there's a lot of resources went into the manufacture of that and they would like to see that it goes back into some usable product and not into a road ditch. So those two

issues are predominant in this type of system. It's a little different than cardboard or number 2 plastic or those type of things. You know, it's easy, those come from a dozen different places in your community. It's hard to identify exactly what is what and what you're going to do with it. This is a little different. It's more like the tire system, where you have to have four tires. When you take four off, you're going to put four more on, so leave the four there and deal with it there rather than take it home and then wonder what you're going to do with it. It's more a system like that. [LR77]

SENATOR WALLMAN: Thank you. [LR77]

SENATOR LOUDEN: Other questions? Seeing none, thank you. [LR77]

GARY LUND: Thank you. [LR77]

SENATOR LOUDEN: Thank you for coming this far to testify for us. Next testifier on LR77. [LR77]

DEBRA DOPHEIDE: Hello. It's good to see you all again. I'm Deb Dopheide. I'm the director for Keep Alliance Beautiful. My first name is spelled D-e-b-r-a. My middle initial is J. And my last name is Dopheide, D-o-p-h-e-i-d-e. You heard my colleague speak earlier about why we think this is an important bill and an important thing to do. I'm going to try not to repeat what she said. But I came from western Nebraska originally, as did Pasha. I was born and raised in Alliance, went to college, went back. And I guess the point that I'd like to make to you is that Nebraska has a history of being a conservative state and we take care of things. You think back to when your parents when...when you were young and your parents going through the thirties and what not, even before that recycling and the whole idea of recycling things was very much a part of their life. They never wasted anything. Anybody who's had to clean out their parents homes after their death knows this. My point to you is this, why would we take something and throw it in the landfill when we can reuse it? Just doesn't make sense to

me. The other thing is...the other point that I would make to you very quickly is the Nebraska Department of Environmental Quality has been Keep Alliance Beautiful...one of their very good friends. They have always helped us when we needed help with things. If we could simply write the grant, make sure it made sense to them, they were fine with it usually. Got cut a little bit, but you know that happens. At any rate, they've been very good friends to us and I think to all the affiliates in Nebraska. One of the problems is there is only X amount of money to split up in those programs that were mentioned earlier. In the case of an affiliate, we have to try to match the amount of funds that they give us by 75 percent, and that can either be in in-kind, or it can be in actual cost, actual money that KAB uses to expend, on money or on projects. That's great. Our problem is by not having a separate recycling for electronic recycling, what happens is that gums into one of my other budgets, and it's usually my recycling budget that it come into. And so what happens is I have to try to meet that 75 percent. For us that hasn't been a huge, huge problem. But if I'm a smaller affiliate and there are a lot of really other...really smaller affiliates than Keep Alliance Beautiful, if they have to try to meet 75 percent, does that mean that they're going to have to limit the amount of electronic waste that they can actually take? Do you understand what I'm trying to point out is that if I know I can only meet...if I have to meet it by 75 percent, and I know I can take 30 tons, but I don't I can't meet the amount for 30 tons, whatever that X amount is, I can't meet that, is that going to limit me on how much I can take? And is that really good for Nebraska? So that's one of the points, I guess, that I would make to you as one of the people who does the budgets and works on that. And that's all I had to say. [LR77]

SENATOR LOUDEN: Questions for Deb? Well, seeing none, thank you for coming up from Alliance and testifying, Deb. [LR77]

DEBRA DOPHEIDE: Sure. Thank you. [LR77]

SENATOR LOUDEN: One question I'll ask you, too, what about television sets? You got

any idea on what we're going to do with these old TVs? [LR77]

DEBRA DOPHEIDE: Well, in our case we have Mr. Martin who takes our...you know, we refer people to him. I don't know what the rest of you poor little towns are going to do. (Laugh) [LR77]

SENATOR LOUDEN: Yeah, but that...I mean I'm thinking a little bit bigger than that, you know. [LR77]

DEBRA DOPHEIDE: I understand what you're saying, do I have any idea? No, I don't. I would tell you this, I put a lot of trust in NDEQ. And I put a lot of trust in their sources and the people that they know. And the fact that I know that they will come up with a solution to this, I know they will, because they always do. [LR77]

SENATOR LOUDEN: Is it going to be better than running over them with a crawler? [LR77]

DEBRA DOPHEIDE: I think so. (Laugh) [LR77]

SENATOR LOUDEN: Okay, thank you. [LR77]

DEBRA DOPHEIDE: Thank you. [LR77]

SENATOR LOUDEN: Next testifier? Is that the last testifier on LR77? Thank you. Then we'll go to...what's the number? LR105. [LR77]

JODY GITTINS: Good afternoon, Chairman Louden, members of the Natural Resources Committee. My name...it's still morning. Good morning, Senator Louden, (laugh) members of the Natural Resources Committee. My name is Jody Gittins, J-o-d-y G-i-t-t-i-n-s. I am introducing this LR105 on behalf of the Natural Resources Committee.

The purpose of the study is to look at uranium mining in the state of Nebraska with respect to water consumption, water use, expansion, and its contracts with the state of Nebraska. We know that uranium mining is increasing, and we also know that the price of uranium has increased over the years and, to date, no one has really taken a look at what that industry is in the state of Nebraska, and the Natural Resources Committee has oversight over that and has requested the interim study be conducted. Representatives from the only uranium mining company located in the state of Nebraska will be testifying immediately after me to be able to ask and answer all your questions. [LR105]

SENATOR LOUDEN: Questions for Jody? Seeing none, thank you. And ready for our first testifier. [LR105]

MARK McGUIRE: Good morning, Chairman Louden, members of the committee. My name is Mark McGuire, M-a-r-k, McGuire, M-c-G-u-i-r-e. I am an attorney for and lobbyist for Crow Butte Resources. What our effort today will be is to present information to you about everything there is to know, and it can be learned in an hour and a half, about uranium mining and the uranium mining process. And we will give you information that will address what I understand to be contracts with Nebraska, in other words, its business relationship in Nebraska, what it puts into the state; water issues, tax issues. Hopefully, we will cover all of those parts. The...I've been associated with Crow Butte Resources since its beginnings, basically, in Nebraska in the early 1980s. Early on, in approximately 1984, we sought and were granted by the DEQ and the EPA a permit to build a pilot plant. We had the idea of in situ uranium mining, and "in situ" means in place. We had the idea; we wanted to proceed forward. We were required to build a pilot plant showing exactly how we could mine the uranium, process it, reconstitute the water in the aquifer that the uranium came from to show that what we were saying was possible was indeed possible. Early on in those days there was significant opposition from a variety of forces. There were dire predictions about water consumption, water pollution, as well as general environmental damage. There was lots

of litigation filed against us, and we prevailed in all of those. I think we also prevailed in the court of public opinion, thank you. And I'll tell you a somewhat humorous but...and very accurate story, and that is the first hearing we had, and this is prior to the pilot plant project, was held out here in Crawford. It was held in the high school auditorium. We were sitting on the stage and it was standing room only. There were two State Patrol officers there, uniformed, to provide peace, and it was a very animated process. The first witness who presented himself to testify had been at Miller Time for some time before he showed up and so that's kind of the tone and tenor of how this whole thing got started. But now, some 25 years later, Crow Butte has done exactly what was promised that we could do and would do. We want to present information to you today in both how the mining operation works and then to actually see the mining process. My vision of this is something like this is science class; after lunch we're going to invite you to go to the lab to see how it all really comes about. You will learn as well, however, about the tremendous economic impact Crow Butte Resources has on both the local as well as the state level. What we're going to present for you is a PowerPoint presentation. Mr. Jim Stokey is going to do that, which raises two procedural issues, Mr. Chairman. First of all, I'm not sure what we're supposed to do here in terms of proponent, opponent, or neutral. I didn't see this as a neutral...or a pro or con issue. Makes a lawyer crazy not to be on one side or the other, but I think we can just maybe be neutral and that works. Secondly, I think you might want to consider moving over to sit here. We can all leave or move back, because it will be on that screen. [LR105]

SENATOR LOUDEN: Okay. How long will it take? [LR105]

MARK McGUIRE: The PowerPoint? [LR105]

SENATOR LOUDEN: Yeah. [LR105]

MARK McGUIRE: Probably close to an hour. Your neck is going to be... [LR105]

SENATOR LOUDEN: An hour? [LR105]

MARK McGUIRE: But I just realized that once we got seated here, that that's where the projection goes. [LR105]

SENATOR LOUDEN: Can we go without? There's other people that would maybe like to testify, and I hate to, you know, put the whole PowerPoint for the testimony when other people would like to testify, if that's all right, for an hour. I didn't realize you was going to have a PowerPoint and I didn't realize it was going to last that long. [LR105]

MARK McGUIRE: We can do it in 30 minutes. [LR105]

SENATOR LOUDEN: Can you cut it down to 15? (Laughter) [LR105]

MARK McGUIRE: To 15? You're a hard bargainer. [LR105]

SENATOR LOUDEN: Yeah, I just got done selling cattle, so I know what... [LR105]

MARK McGUIRE: (Laugh) We can go as short as we can. Maybe we can (inaudible). We'll... [LR105]

SENATOR LOUDEN: Can we do it this way, other testifiers, and then we can finish up with the PowerPoint? [LR105]

MARK McGUIRE: Sure. That's a good idea. [LR105]

SENATOR LOUDEN: Okay. We'll go with that then. Next testifier. So you know what's ahead of you, so you better be ready to go if you want to testify now. [LR105]

DEBRA WHITE PLUME: (Exhibits 7, 8, and 9) Well, good morning. My name is Debra

White Plume. I'm an Oglala Lakota from Pine Ridge, South Dakota. I'm the director of Bring Back the Way, a grass-roots cultural preservation and social change NGO with environmental and health consultative status to the Oglala Sioux Tribe. I wanted to share with you a very short and brief history. Our Lakota people have ancient spiritual, cultural, and historical ties to this entire region of the Great Plains. In fact, the ground we stand on is 1868 Fort Laramie Treaty land, a treaty ratified by the United States Congress and recognized by international law. Regarding the consumption of water and expansion of uranium mining, our people believe water is our first medicine, water is sacred, water is the adornment of Mother Earth, water is life. Without water, there is no life. There's a finite amount of water on Mother Earth. The water we have now is the water that was here in the time of the dinosaur and it is the water that will be here in the time of our grandchildren's grandchildren and onward. Research documents that in situ leach mining to extract uranium poses many risks to the contamination of ground water, land, air, people, and plants. The Crow Butte Resources in situ leach uranium mine currently operating in Nebraska has, in fact, spilled and leaked radioactive contaminants each year since they began operating. Crow Butte Resources has requested and received approval to utilize 9,000 gallons of water per minute to extract and store uranium and waste at their facility, which is a few miles from here. Crow Butte has applied to develop two new mines in the expansion of their current license. These two new mines will also utilize ground water to extract uranium and store the radioactive waste. It's a scientific fact that mining can pull other minerals and metals from the earth in addition to the intended element. They want to mine uranium. They also pull out arsenic. There are currently 26 towns and cities in Nebraska attempting to remedy the illegal maximum contaminant level of arsenic as the new MCL became 10 in January of last year. There are 98 homes on the Pine Ridge whose wells drinking water quality test revealed an arsenic MCL from 2 to 12 times higher than the legal EPA limit. The United States Geological Survey rural water program, the Indian Health Service, the Federal Agency for Toxic Substances and Disease Registry, and women of all red nations have all tested the ground water and surface water on the Pine Ridge. The tests reveal alpha emitters in the wells, streams, and springs across the Pine Ridge. We are doing a broad

health study to create an epidemiology map to examine further the published reports of the South Dakota Department of Health which state that American Indians in South Dakota have a significantly higher rate of cancer than whites; that we die faster and younger; and that our infant death rate continues to rise annually and is the highest in the nation. The diabetes rate on Pine Ridge is translated at one diagnosis per day. Science tells us the kidney is often more quickly affected by prolonged exposure to even low doses of arsenic and radionuclides, causing death prior to the onset of cancer in many patients. The radionuclides detected on the Pine Ridge, according to the USGS report, include thorium 230, which is a result of uranium mining, which may have traveled to Pine Ridge from the Edgemont area. However, Crow Butte Resources, utilizing ground water and a common aquifer which covers eight states, is a very serious concern to our people. The current in situ leach uranium mine in Crawford is producing nuclear waste, which is stored on site and eventually put back into the ground water. The nuclear industry will tell us ISL is safe. Other viewpoints in the scientific community tell us it is not safe. In the Lakota world view, water is to be respected. ISL uranium mining is disrespectful to water and to all of creation. Contaminating the water and, thus, impacting all of creation is disrespectful, as well as deadly eventually. The use of sacred water to create contamination is not good for life. ISL mining creates a liquid nuclear waste dump. The nuclear industry has created nuclear waste. They have created something that cannot be destroyed. The Canadian-based corporation of Cameco, Incorporated (sic), which owns Crow Butte Resources, is mining a very dangerous metal, creating a pollution that cannot be captured once released; takes its profits and leaves us with a contaminated environment and a depleted aquifer. In the current drought, to continue to contaminate and deplete the ground water is a human mistake that may never be remediable. And I may just have created that word. I urge the state of Nebraska to work hard to work with Crow Butte to reclaim this area and the water, for the powers that be to not approve the Crow Butte application for expansion and to not renew their existing ISL license, and to now allow the use of our precious water for this dangerous endeavor. The effects are too damaging and far reaching. I urge you, I urge Nebraska to adopt the precautionary principle adopted at the 1992 Rio

Summit, which my brother will be talking about after me. The purpose of these hearings where we now sit are for folks like me to have a voice to be heard by leaders and decision makers. For the record, I submit the Oglala Sioux Tribal Ordinance 07-40, enacting the Natural Resources Protection Act of 2007 and declaring our homeland a nuclear-free zone; and Resolution 07-149 regarding uranium contamination. And I submit for the record the Bring Back the Way water, mining, and health report regarding contamination of the Pine Ridge. I did not bring copies for everybody, and I apologize for that. I brought one copy for the record. Thank you for listening to me. [LR105]

SENATOR LOUDEN: Questions for Debra? Is that...that's right, your name, Debra? [LR105]

DEBRA WHITE PLUME: Debra, D-e-b-r-a, yes. [LR105]

SENATOR LOUDEN: Yeah, you didn't spell, yeah. Yeah, and you're from Pine Ridge? [LR105]

DEBRA WHITE PLUME: I'm from Pine Ridge. [LR105]

SENATOR LOUDEN: Okay. Senator Christensen. [LR105]

SENATOR CHRISTENSEN: Thanks, Chairman Louden. Debra, I thank you for coming. You mentioned that there's a loss of water, and you also mentioned that there is contaminated water returned to the ground water. Where is the loss and what amount of water is returned? [LR105]

DEBRA WHITE PLUME: When I talked, I talked about the need for a water study on Pine Ridge. That's something we need to document because common sense tells you, if you're pulling water out of the aquifer, there's a loss occurring, just like your water cup there. As you drink it, it gets lower and lower. If you don't pour anything back in there,

you're depleting your water supply. That's one of the things that our tribe wants to find out in terms of what is the rate of depletion. But science tells us for this aquifer it is not being rejuvenated at the same rate that it is being depleted. If we're pulling up to 9,000 gallons a minute, 24 hours a day, 7 days a week, 365 days a year, our common sense just tells us that we're obviously not rejuvenating it at 9,000 gallons a minute. This might be something the DEQ and other entities in Nebraska need to look at. [LR105]

SENATOR CHRISTENSEN: Did I hear you say that there was also contaminated water going back? [LR105]

DEBRA WHITE PLUME: In doing this research, and it's in our report, there are many documented cases of spills and leaks occurring at Crow Butte Resources, pages of them, there's pages of them and we have them documented in this report, every year since they've been operating. Every year their ponds leak, their pipes leak, their wells leak--1997, 1998, 1998, 1999, 2000, 2000, 2000, 2000, 2001, 2001, 2002, 2002, 2002, 2003, 2004, 2005, 2005, 2005, 2005, 2005, 2006, 2006, 2006--spills and leaks of radioactive contaminants at Crow Butte Resources. I can't tell you the exact number of gallons. I know one of our research studies of your reports in Nebraska state that over 300,000 gallons of contaminated waste was spilled and Crow Butte was unable to recover all of that. Your records state that one-third of it was cleaned up and that the rest, they weren't able to clean it up so that that area is now considered unfit for future use and considered a sacrifice area. That's what our research documents. They could tell you different today. They're here. [LR105]

SENATOR CHRISTENSEN: Thank you. [LR105]

SENATOR LOUDEN: Other questions, Mark? [LR105]

SENATOR CHRISTENSEN: No. [LR105]

SENATOR LOUDEN: Other questions for Debra? I have one or two. When you talk about arsenic on the Pine Ridge, that is in the ground. That doesn't necessarily come from Crow Butte water or something like that, is it? Because we have arsenic problems all over western Nebraska and western South Dakota and the whole bit. That's more or less coming out of the ground itself, isn't it? [LR105]

DEBRA WHITE PLUME: It... [LR105]

SENATOR LOUDEN: Can that be blamed on Crow Butte? [LR105]

DEBRA WHITE PLUME: Well, that's one of the things that we're looking into, because there's two types of arsenic. Arsenic, as arsenic, is naturally occurring. We do have that. We do know that. You know that in your state. There's such a thing called inorganic arsenic and that is a result of mining. And we're looking into... [LR105]

SENATOR LOUDEN: Now is that...okay, when you talk about that, is that from up around... [LR105]

DEBRA WHITE PLUME: Edgemont area? [LR105]

SENATOR LOUDEN: ...Edgemont area? And that was a different type of mining up there. They... [LR105]

DEBRA WHITE PLUME: That was open pit. [LR105]

SENATOR LOUDEN: ...they went in and dug it out and made a mess years ago, and I don't know if they're even mining anything up there now. But is that...is that where you got some of your inorganic arsenic, as you call it? [LR105]

DEBRA WHITE PLUME: We believe we got some from the mining at Edgemont,

open-pit mining, and we believe the contaminant may be entering the aquifer from Crow Butte Resources. We believe that also. The Indian Health Service is compiling data from the early 1970s to the current time in order to look at it with a comprehensive viewpoint over time, over the last 30 years, and I imagine Nebraska officials are doing the same thing. [LR105]

SENATOR LOUDEN: Now you mentioned radioactive material. Is that...is that what...you're talking about yellow cake that gets spilled on top the ground or what do you mean by radioactive material that got...that got spilled or whatever? [LR105]

DEBRA WHITE PLUME: The waste from ISL mining is radioactive. The water and the sludge that's left over, once they pull out the substance to make yellow cake, is radioactive. [LR105]

SENATOR LOUDEN: Now is that...at what level, I guess? I mean is that any higher level than if you walked into a mine up at Edgemont? I mean, you walk into one of those mines, you're going to...the clicker will click. And is it any higher, what you're talking about, than what would more or less be natural occurring? I guess that was kind of my question. [LR105]

DEBRA WHITE PLUME: I don't know how quickly you would be contaminated, but its life is 144,000 years before it loses its radioactivity. [LR105]

SENATOR LOUDEN: Okay. Other questions for Debra? Senator Fischer. [LR105]

SENATOR FISCHER: Thank you, Chairman Louden. Just a short question. Thank you for coming today. I haven't looked at the map for this. How far is the reservation from the mine? [LR105]

DEBRA WHITE PLUME: Thirty-eight miles, as the crow flies. See, our border, we

border with Nebraska maybe 30 miles from here. [LR105]

SENATOR FISCHER: I'm from Valentine, which is close to the Rosebud Reservation. [LR105]

DEBRA WHITE PLUME: Uh-huh. Right. [LR105]

SENATOR FISCHER: And I am aware of the problems and challenges faced on that reservation by the Lakota, and I assume that you also face many of those challenges. You brought up diabetes and life span, life expectancy, and I guess I'm asking were you implying that those are problems caused by mining? [LR105]

DEBRA WHITE PLUME: I'm telling you that I believe uranium mining has a disastrous effect on human beings and our environment, and science tells us that. Nuclear waste is deadly in any way, shape, or form. [LR105]

SENATOR FISCHER: You said there may be different materials in the water, on the reservation, in the aquifer, in your wells. You use that...you used "may be" a couple times. [LR105]

DEBRA WHITE PLUME: Uh-huh. [LR105]

SENATOR FISCHER: Do you have any kind of studies or research on that? [LR105]

DEBRA WHITE PLUME: Yes. I have studies here that show. Indian Health Service, USGS, the National Toxic Registry, our rural water program have all tested the water and there are radionuclides in the water. Alpha... [LR105]

SENATOR FISCHER: Is it in some of the materials that you have for it? [LR105]

DEBRA WHITE PLUME: It's in here, yes. [LR105]

SENATOR FISCHER: Okay. [LR105]

DEBRA WHITE PLUME: Alpha emitters; radium 226, 228 combined; cadmium; barium; they found thorium 230--and these are agencies of the United States government that came here and tested our water, you know--and including arsenic. I wanted to say that, just in closing, I know the battle that took place in Nebraska government to not become a nuclear waste dump. I remember that and how the Governor had to pay a big fine to not become a nuclear waste dump. And I really believe there's good people in Nebraska. There's good people everywhere. And I want to tell you that we're having a uranium summit on Pine Ridge and we're bringing in ISL experts from around the world and we would like to have one day of presentation in the state of Nebraska, and we may try to work with a student group here on campus to do that. I believe that every day every citizen needs to know the pros and cons of uranium mining. And once people make up their minds based on information, then we can say we have made an informed decision. Thank you. [LR105]

SENATOR FISCHER: Thank you very much. [LR105]

DEBRA WHITE PLUME: Uh-huh. Who do I give my...down here? Okay. [LR105]

JODY GITTINS: Debra, would you like to just give it to me, and I'll (inaudible)? [LR105]

DEBRA WHITE PLUME: Sure. [LR105]

SENATOR LOUDEN: Yeah. Thank you for testifying. Are you on the tribal council up there? [LR105]

DEBRA WHITE PLUME: No, we're...the organization I work for is a nongovernmental

organization with environmental and health consultative status to the tribal government. [LR105]

SENATOR LOUDEN: Okay. Uh-huh. Thank you for testifying. [LR105]

DEBRA WHITE PLUME: Thank you. [LR105]

THOMAS K. COOK: Good morning, Senator Louden and esteemed senators of the Natural Resources Committee. My name is Thomas, T-h-o-m-a-s, K., for Kanatakeniate, Cook, C-o-o-k. I've been a resident of Chadron since 1978. I am the president of the Chadron Native American Center, the legal representative body of Native Americans in the northern Panhandle. I'm also president of the High Plains Community Development Corporation. Also, I am a member of the Governor's Commission on Indian Affairs for the northern Panhandle. I say a hearty thank you for your presence here, your interest, and your dealing with the proposed expansion of Crow Butte Resources' uranium mining just west of us. My wife of 32 years and I are landowners here in Dawes County and also 20 miles north on the Pine Ridge Reservation on her family allotment. In the 34 years we have developed our homestead, the White River has dried only two or three times. I remember them: 1980, 1982, and 2007. Last year was similar. The White River consists of stagnant green pools of muck right now. In 1980, I was the administrative assistant for the vice president of the tribe, and when the water dried up the executive committee sent the legal counsel to the Natural Resources office, which I understand you oversee, and the question the young attorney asked, the attorney Robert Grey Eagle, asked the officers there was we have the prior use right, the Winters Doctrine, the river is ours, the Lakota Indians, as well as it is you good people down here in Nebraska, so we want to inquire about the regulations for water passing through the reservation. And the attorney told the executive committee--I was there at the time--he said the officials told him we don't have to leave enough water in the river for the Indians to piss in. That was 1980, ladies and gentlemen, and I certainly hope the attitude, the sense of things in your officers at the local natural resources district are more educated,

up to date, and considerate of their own place here. The Native American people, you know, have been here untold generations of time. We respect you, the people here who have been how many generations in this area. Each of you can say, oh, my grandfather, my great-grandmother came from here and there in Europe. The people that are from here have a vastly different history they refer to, not only in their conscious, social, analytical thinking, but in their spirit. So the thing about water might be something radically different from the quantitative, analytical approach that you take. It's something that has life meaning to it, close as your own grandchildren. I have come here to oppose, state my opposition and promise the opposition of Native American organizations, individuals, associations, and tribe in this region for more radioactive poisoning to this environment. My question is simple. Do the pools out west of Chadron, 20 miles, do those pools constitute a radioactive nuclear waste dump? It's a simple question. But I understand that these speculative funds coming in are basically foreign entities from Canada. So are foreign entities releasing radioactive material on U.S. soil to make a profit? And if so, is that not an act of war? How is that different from a dirty bomb? I ask this question because from my five acres of property in Dawes County I overlooked Crow Butte, and it's 20 miles from my house, so I have a vested interest. And I understand you have a vested or professional interest. But it's scary to me because of the revelations of the water book that Mrs. White Plume has presented to you, the results of research over many generations of tribal councils, and the assault of more and more of these in situ mines. The people suffer from a certain lack of information and understanding, our population, in general. As I understood, in 1997, when they began this mine over in Crawford, there's going to be how many mines? Well, Waymon Wilde, Jr., who had been at Daracant (phonetic) for many months out there, and finally left because he's scared of the stuff. He's a young man--20s. I asked him, how many of these in situ mines there are out there right now, and he said there are close to 8,000. So if these 8,000--and they're, by the day, continuing by the day, expanding and expanding and expanding--so at what...at what...at what...we heard the man say, some man say, that the uranium is all over in the region. Well, is Crow Butte Resources going to come right to my property, 20 miles east, and are they going to use

up 9,000 gallons a minute, each one of them or combined, or what is the water use of this process? I'm concerned because I'm employed for 14 years as a program director and field coordinator for Running Strong for American Indian Youth, an organization national in scope, but it has brought $30 million of development--water wells, housing, diabetes clinics--all sorts of programming to Pine Ridge Reservation and to Nebraska through the Native American Center. And this year my program set in 356 vegetable gardens on Pine Ridge communities. Up until a few years ago, my primary source for irrigating my half-acre garden was the White River. And when it started drying up, why, naturally, I plugged into another source. But if the test is use it or lose it--do the Indians use the river? Yes, we do. We depend on it for such luxuries as gardening, feed your own families. Of course, if you say, oh, no, the government is going to feed your family, you don't have to bother with the stuff, therefore, you don't have to worry about using water and you're going to lose it, that's the situation we're in on Pine Ridge today, Senator. I came to urge, refer, and advise that your committee and the state of Nebraska adopt a precautionary principle because we are potentially affected parties in this whole business and process. This precautionary principle has been adopted in international law through the Rio Declaration adopted at the 1992 U.N. Conference on the Environment and Development, also called the Earth Summit in Rio de Janeiro. This same principle has been adopted by the European Union, and further articulated in 1998 at the Wing Spread Conference as follows, one sentence: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken, even if some cause-and-effect relationships are not fully established scientifically. In this context, the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed, and democratic, and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action. Senators, this precautionary principle is one we are going to proceed with in the Chadron Indian Organization, the Oglala Sioux Tribe, and follows the cares and the address of the native nations at a world uranium hearing in 1992. Native people over all believe that uranium should be left in the ground, in its natural resting place. I fear that the same

thing is happening as happened 130 years ago with gold, in a time none of your ancestor...or few, some maybe of your ancestors were here, but they were coming by droves because of this fever of gold. The price went up like uranium prices going up in the last year, 18 months, and next year it's going to be a couple hundred dollars. And so you've got all this speculation, thousands of companies speculating how can they become millionaires who get rich off poisoning of the water and the people. Senator Louden, I say thank you for your interest, your attention paid to this matter, and I hope you will proceed with the sense of precautionary principles. Before you proceed, I would like you to strictly examine this whole matter of mistakes. We're all human. Our endeavors are prone to mistakes. First thing this morning the good senator made a mistake right off the bat. He misspoke somebody's name over here and, sure... [LR105]

SENATOR LOUDEN: Are you done testifying? (Laughter) When you start in on me, you start in on the wrong person. While I'm talking to you here, on the White River, that Lake Whitney Dam and that is on the White River. [LR105]

THOMAS K. COOK: Yes. [LR105]

SENATOR LOUDEN: Okay. And is that a Bureau of Reclamation project, or who owns that dam or who controls that irrigation on that? And is there return water that comes out of that lake after there's irrigation canals? [LR105]

THOMAS K. COOK: My understanding is that the natural resources district in Chadron oversees the Whitney irrigation project. I thought back, for sure, it must be the Whitney Dam that choked off the river, so I went over there. I went to Whitney, and that dam is a mud puddle itself. [LR105]

SENATOR LOUDEN: In other words, there isn't any water flowing into the dam. [LR105]

THOMAS K. COOK: No. [LR105]

SENATOR LOUDEN: Is there much water flowing past Crawford that's coming down the White River? I mean is the thing dried up clear back up into Wyoming or...? [LR105]

THOMAS K. COOK: If there's 9,000 gallons of water being taken at Crow Butte, of 24/7, then this probably... [LR105]

SENATOR LOUDEN: Okay, then your thinking is that by their pumping there they've affected the flow of the river. Is that what you're telling me? [LR105]

THOMAS K. COOK: Yes. [LR105]

SENATOR LOUDEN: Okay. Thank you. Other questions for Tom? Seeing none, thanks for coming and testifying, Tom. [LR105]

THOMAS K. COOK: Thank you, Senator. [LR105]

SENATOR LOUDEN: And I work quite a lot with Judi gaiashkibos down there. [LR105]

THOMAS K. COOK: Yes. [LR105]

SENATOR LOUDEN: And I think I've talked to you a time or two or on the phone. [LR105]

THOMAS K. COOK: Yes. [LR105]

SENATOR LOUDEN: Okay. Thank you. [LR105]

THOMAS K. COOK: Thank you, sir. [LR105]

SENATOR LOUDEN: Next testifier. Oh, I guess we're ready for the picture show. [LR105]

MARK McGUIRE: Jim Stokey. [LR105]

JIM STOKEY: I guess we can start. [LR105]

SENATOR LOUDEN: Go ahead. [LR105]

BARB KOEHLMOOS: Excuse me. We do need you all to introduce yourself (inaudible). Okay. Thank you. [LR105]

JIM STOKEY: (Exhibit 10) My name is Jim Stokey, J-i-m S-t-o-k-e-y, and I brought some people with me to help with this. [LR105]

BARB KOEHLMOOS: Jim, could I...I'm sorry, you're not picking up on our recorder at all. [LR105]

SENATOR LOUDEN: You need that other microphone. [LR105]

BARB KOEHLMOOS: We have a mike right here. (Inaudible) Okay. [LR105]

JIM STOKEY: Can we try it now? Can you hear me now? [LR105]

BARB KOEHLMOOS: Yeah, we can, but...I think it will be okay. [LR105]

JIM STOKEY: I'll stand close. I'll speak loud also. Do you want me to do my name again? [LR105]

BARB KOEHLMOOS: I'm sorry? [LR105]

JIM STOKEY: Do I have to do my name again? [LR105]

BARB KOEHLMOOS: If you don't mind. [LR105]

JIM STOKEY: All right. [LR105]

BARB KOEHLMOOS: This is for our transcribers. [LR105]

JIM STOKEY: I thought it was. Thank you. (Exhibit 10) My name is Jim Stokey, J-i-m S-t-o-k-e-y. I'm the mine manager at Crow Butte Resources, and I do appreciate the chance to talk about our mine. I can tell you right now I'm extremely proud of what we do in western Nebraska, and I'm extremely proud of the people who work for me. With that, I'd like to introduce three people that came with me. Two of them will be helping me with this presentation today. There's Rhonda Granthem, and their sheets have all been put in up here, so Rhonda. [LR105]

RHONDA GRANTHEM: Hi. [LR105]

BARB KOEHLMOOS: You know, I don't know what's going on, but we're not (inaudible). Oh great. Sorry. (Laugh) [LR105]

JIM STOKEY: That's all right. (Inaudible) Can you hear us now? [LR105]

BARB KOEHLMOOS: Ah, yeah. [LR105]

SENATOR LOUDEN: And just speak up. (Inaudible). [LR105]

JIM STOKEY: Okay. All right. Rhonda, would you introduce (inaudible). [LR105]

RHONDA GRANTHEM: Sure. [LR105]

JIM STOKEY: I guess this is the way we should do this, so we get everybody on the... [LR105]

RHONDA GRANTHEM: Okay. Hi, I'm Rhonda Granthem, it's R-h-o-n-d-a G-r-a-n-t-h-e-m. [LR105]

JIM STOKEY: John. [LR105]

JOHN CASH: Good morning. My name is John Cash, J-o-h-n C-a-s-h. [LR105]

JIM STOKEY: We'll have them help do the presentation as we go through this. I'll just stand up and take care of the sections as we go. We'd like to get through this, I guess, relatively quickly for you, so we'll start in on this. Again, thank you for giving me the opportunity to do this. Crow Butte Resources, as mentioned earlier, is owned by Cameco, worldwide. We are an independent, incorporated company in the state of Nebraska. Cameco is the parent company for us. Our office is out of Minneapolis, Minnesota, for Cameco USA, and then the corporate office is out of Saskatoon in Canada. If you go to the Internet site for us, it'sCameco.com, and you can find some information out there about our mine. And if you would want to look at us on the New York Stock Exchange, it's...our symbol there is CCJ. The vision for Crow Butte Resources and for Cameco, we're in the business of making electricity and that's all we do. We produce fuel. We produce fuel cleanly. And one of the things that our corporation wants to do is become a dominant nuclear energy company, producing uranium fuel and generating, and I reiterate, clean electricity. Cost of electricity, if you take a look at this by source: gas right now in U.S. cents per kilowatt hour is 5.87; oil, 5.39; coal, 1.92; nuclear at 1.63 cents; and hydro at .58. You can see we're very competitive for the cost of electricity with other sources for fuel. The use of nuclear energy worldwide, hydro is at 19 percent, gas at 15, oil at 10 percent, 1 percent for

other sources, coal at 39, and we're at 16 percent worldwide. There are 32 counties now that use nuclear energy and we play a part in that. John will talk to this. [LR105]

JOHN CASH: Just touch briefly on this. One of the issues that you hear on the news a lot lately and in the newspapers is the issue of global warming, and one of the key contributing factors that's been attributed to that is the emissions of CO2 gas into the atmosphere. So I'd like to just talk about this briefly. There are three different studies represented on this chart: one in Japan, one from Sweden, and one from Finland. And they're basically listing the life cycle CO2 emissions per source of energy, and number of different energy sources listed on there, coal being the worst emitter of CO2 gas, hydro being the best. But what you'll see down there is, second to hydro, is nuclear, very consistently across the board. You know, that really shocks a lot of people. They say, well, wind has got to be the lowest, or solar, and that's not true. Because of the density that you can power from nuclear energy compared to wind and solar, in the end of the day, nuclear is cleaner. This includes everything from mine (inaudible) all the way through to the end of production of electricity, so it's entire life cycle. [LR105]

JIM STOKEY: If you'll take a look at the bottom of that slide, fuel costs for nuclear reactor, about 35 cents per kW, and 1 kilogram of U308 will generate over 300,000 (sic) kW, so it's a, as John said, it's a good source. In the United States right now we see that there...or we think that there are going to be about 20 new units on line by 2020, and 8 units on by 2016. These are in no particular order, but those are the eight units that are being proposed right now as to come on as far as reactors and power plants. You can see they're spread across the United States, but those are the proposed places, proposed sites that are now applying for licenses to generate fuel...or electricity. Excuse me. Cameco's location, to give you an idea where we're at, Saskatoon is our home ofice. There are a number of mines up here in northern Saskatchewan: Key Lake, McArthur River, Rabbit Lake, and Cigar Lake. They're up in the Athabasca Basin. Blind River is where we ship our fuel to, or our material to, and it has a conversion facility there. Port Hope is, John... [LR105]

JOHN CASH: Conversion. [LR105]

JIM STOKEY: ...conversion, excuse me; and Toronto is the stock exchange. Minneapolis, again, is our home office. And Saskatoon, of course, is the main office for Cameco. Where we're located, that Crow Butte flashing right there. This is the Highland mine, Smith Ranch Highland mine in Wyoming. Those are the only two operating mines in the United States right now, other than the Mysting (phonetic), I believe, that are in full production, and Cameco owns both of those sites. And so, to give you an idea, this is the Panhandle of Nebraska right there, and then of course this is Wyoming, so we're not that far from each other. [LR105]

SENATOR FISCHER: Excuse me, what was the green outline on the map? [LR105]

JIM STOKEY: Where? That line? [LR105]

SENATOR FISCHER: No, the green area. [LR105]

JIM STOKEY: Oh, that's a federal forest. Those are Forest Service lines. Excuse me. Cameco Corporation is the largest producer of uranium in the world and in the U.S. We produced 2.8 million pounds last year between the Smith Ranch Highland mine and the Crow Butte mine. And we also have significant reserves left in the United States yet to mine. Facility facts about the Crow Butte site: We started commercial production in April 1991; we became wholly owned by Cameco in the year 2000; and we're designed at our mine to produce about 800,000 pounds of U308 per year using in situ recovery. In situ recovery is widely reviewed as a very safe mining method. We have...we're on 888 days right now with no lost time accidents for 58 people. We celebrated our 250th...250,000 hour of operation with no lost time accidents last...about two weeks ago. Before that, it was about a year ago...or three years before that we celebrated it for the first time in operations, was our last 250,000 hour. The lost time accident that we had that caused

us to lose our record was a man dropped a pipe on his foot and couldn't come back to work the next day. And we don't have any haulage, nor do we have any dangerous equipment, per se, and you'll be...you'll get to go out and take at that. Our rigs are probably the most dangerous thing that we run, so it's viewed as a very safe mining method. We're ISO 14001:2004 certified. We did that in December of 2005, and this is the international standard for the environmental management system that we have at Crow Butte, and this is by independent certification, and ours is by...what's the name of the company? [LR105]

JOHN CASH: Perry... [LR105]

JIM STOKEY: Perry Johnson and associates (sic). We have those people come in and they certify us every year. Crow Butte's total consumptive water usage is 112 gpm per minute. In one year, in one year, Crow Butte uses the same amount of water as one, single center pivot irrigating one crop, 130 acres of corn, applying 16.7 inches of water per acre. And that's our consumptive use. We recirculate 4,400 gpms through ion exchange columns, and those ion exchange columns are the same type of column you have or the same type of technology you have in your Culligan water system in your home, and we recirculate that through the Chadron Aquifer and then we recover uranium from that solution. We're asking to go to 9,000 gpm this following year and...but we still will recirculate that at the same...at approximately the same usage. Rhonda will talk to you about our permits and our oversight. [LR105]

RHONDA GRANTHEM: Okay, as a uranium mine, we operate under a variety of state and federal permits. With state of Nebraska we have a Class III underground injection control permit. That's our...the permit that regulates our well field use, our injection. We have a Class I UIC permit. UIC is underground injection control. The Class I permit is for our deep injection well, which we dispose of some of our waste solution. The Class V permit is septic system. We have an NPDES permit for land application, which currently we haven't used, but we have that permit in...have that permit available to us. With the

Nebraska Department of Natural Resources, we operate under an industrial ground water permit, which regulates the amount of water that we circulate. And again, as Jim said, we don't consume that water. We recirculate most of it. And then we do our well registration. All of the wells that we install we have to register with the state of Nebraska. And then with the Department of Health and Human Services we have a nontransient, noncommunity, public water system. That's our water system that we use for our potable system on site. We have 15 employees, so we have to license that well. And then we also have to license our...some of our employees for pump installation and well construction, and that's, again, through the department. And then we have federal regulatory oversight as well. With the Environmental Protection Agency, we have an aquifer exemption for...that allows us to inject our solutions, and actually that's administered by the Nebraska Department of Environmental Quality. The Nuclear Regulatory Commission regulates our source material, so we have to license with them; receive the source materials license in order to actually mine and produce the uranium. It also regulates what we call our by-product waste, which is our contaminated waste material. Department of Labor, OSHA, Occupational Safety and Health, regulates our worker safety, and actually the Nuclear Regulatory Commission regulates worker safety as far as radiation safety. And then our Crow Butte initiatives, as Jim mentioned, we're ISO 14001 certified and that system incorporates our radiological worker safety and environmental safety. [LR105]

JIM STOKEY: You ought to do the first part of this. [LR105]

RHONDA GRANTHEM: This one? Oh, okay. Okay, our project: We have what we call our environmental health and safety program. We regulate regulatory issues, the worker safety, and also the environmental. We have a staff of ten people in our EHS department. We have a manager, a safety superintendent, an environmental coordinator, the radiation safety officer. I'm the radiation safety officer. The health physics technician is in the radiation safety staff. Our on-site lab, which does both process analytical work and environmental work, our sampling, and then our water

sampling staff is also a part of the EHS department. We have two full-time water samplers that take environmental samples so that we can verify that our process solutions are where they should be at all times and that we're not contaminating anyone's well. [LR105]

JOHN CASH: The EHS department, being up at the top there, environmental health and safety, and I'm a part of the operations group and we work very closely with the EHS group. In fact, Rhonda and I, we meet every day; most days we meet several times a day. But there's a very close relationship between those two groups. And the plan operations, I'm in charge of that, as well as the well field recovery and injection. There's a tremendous amount of training that goes back and forth between these two groups. I oversee these two groups. I also have a foreman in both of those groups to oversee the day-to-day job duties of the people that we have employed there, and also working with reclamation of...not only restoration of ground water, but reclamation of the surface so that when we're done mining, we restore the ground water, take off all the surface structures that have been there, so when we're done we return it to an area that looks just like it did when we first got there. It looks like prairie. So that's basically operations group. They work very closely with the EHS department, as well as with each other. The process of the plant, whatever they do affects the well field, and the well field, what they do affects the plant, so there's a tremendous amount of communication between those two groups, making sure that we do things properly. [LR105]

JIM STOKEY: Well field installation/geology is taken care of by Wade Binds (phonetic). He is one of the younger people that we have on the staff. He'll...when you're invited out to a tour of the mine this afternoon and you'll meet Wade out there. He'll be at one of the rigs and he'll show you what he does out there and he'll further explain some of this. The drilling, the exploration, the geology, and the rework will be explained out there when we meet out there this afternoon. Well field construction and maintenance is another department, and there are about eight people associated with that and they do all of our surface construction and they do all of the maintenance in the mine as we

have out there right now. Everything at the mine...and you must note that everything at the mine is taken care of at the mine. We do almost everything out there, as far as the build and stuff, ourselves. You'll see out there today we have a contractor on site that we're renewing some of the plant facility and so it will be kind of a...it will be kind of torn up out there a little bit in the plant facility when you see it, but you'll see some of our progress. The administration then, which is my department, Ann Tate (phonetic) and a couple other people, we oversee everything else and this is kind of how we put our organization together in a nutshell for you. We'll let John talk about our process very quickly. [LR105]

JOHN CASH: Well, very quickly, this is just some of the processing that we do at the facility. We talked a little bit about the ground water and basically we have two different types of wells here. The blue on either side, here and here, those are the injection wells. That's where we pump down the mining solution. The mining solution consists of ground water, (a) the ground water; sodium bicarbonate, which is baking soda; and oxygen. That's what we inject into the ground. That solution, we refer to it as a lixiviate, sweeps through the ore body, complexes with the uranium, putting it into solution, and then we pump it up through our production well here, which is in yellow. We have a submersible pump. These are installed very similar to what you would a well on your ranch, very similar construction. That production water will go up through a bed of ion exchange resin. Jim mentioned that this is very similar to the type of resin you'd have with a water softener. Your water softener at home is designed to remove things like calcium and iron. Ours is designed to remove uranium. It's very specific to that. So it will pick up that uranium. That water then is recycled back out to the injection wells once we refortify it with baking soda and oxygen, so it just continues to make that loop. And we'll draw a little bit off to maintain control of our mining solutions, and I'll get to that in just a second. Once the resin is loaded with uranium, bicarb and oxygen, it will go to a precipitation cell. At this point the water takes on a little bit of a yellow color, like a weak lemonade, and it will contain about 30,000 milligrams per liter uranium. But it's still in liquid form and we want to create a solid form out of it, so we'll do a precipitation with hydrogen

peroxide and caustic soda, and that's where we make yellow cake. I'm sure you all of heard the term "yellow cake" used before. Chemically, this is the end of our process right here. We're going to do some more physical things to it--washing and drying--but chemically, this is our final product right here. We'll pump it over to a thickener. That basically allows the yellow cake to settle out so we've got a nice, consistent product instead of a wet mixture. We'll then pump it across a belt filter. At this point, there's some salt in it and we want to wash the salt out, so we're running it across a vacuum belt to do that. We'll come out with a very clean product. It's still wet, though. We'll run it over to a rotary vacuum dryer. This is a piece of standard industrial equipment that you'd see in industries all across the world, and we pull a vacuum on that dryer vessel and, by doing so, we can lower the boiling point of water to around 130 degrees Fahrenheit and we can boil the water off and end up with a very dry product called yellow cake. It's called yellow cake because of the nice yellow color to it, and the texture is very similar to a yellow cake mix that you would buy at the store. That's why it's called yellow cake. From there, we'll load it in DOT-approved drums, load it onto a trailer, exclusive use trailer, and we'll ship that off to the conversion facility where they'll continue the chemical processing. I said I would get back a little bit to the water flow through the columns and the return. We do maintain a bleed of process water, and by doing that we always extract a little bit more water than what we put back into the formation, and by doing that we create a small cone of depression so that water is always flowing into the mine, versus a high-pressure mound where we'd flow out. So that 1 percent bleed that we talked about is used to maintain the hydrologic control of the mining solutions. I believe that's... [LR105]

(MAN): How deep is the production well? [LR105]

SENATOR LOUDEN: We got to...we get to ask the questions. [LR105]

(MAN): Oh, I'm sorry. [LR105]

JOHN CASH: The typical mining pattern is kind of hexagonal and really that's dictated by the geology. Sometimes they're hexagonal, sometimes they're a line drive. They'll take on a different shape depending on the geology. But in the center, we'll have the production well, in yellow; the outlying wells are injection wells. So you can see the arrows. That water is sweeping across to the producer. It's very important that we keep a similar distance between the wells so that the wells sweep evenly. If you get wells offset, they're different distances to the producer, one well will sweep a little bit differently and you'll have a different efficiency. So we try to keep them evenly spaced. The depth of our wells varies pretty considerably and it's based on topography. There's actually very little slope to where we're mining, nor slope of the formation, but there is a lot of topography so you see the range of depth at 500 to 1,200 feet. That's topography. That's the hills, hills and valleys. And we also use HDPE piping, high-density, polyethylene piping throughout the mine site. Standard array of patters here: you see the hexagonal pattern, we like that because they fit together really nice. If you'd go to, like, a five-spot pattern, they don't fit together. If you ever tried to take pentagons and stack them side by side, it doesn't work very well. We maintain a pressure of 100 psi or less at the injection manifold. The reason we do that is we do not want to fracture the formation. That 100 psi is extremely conservative. In the oil field, they'll usually say you can have 1 psi per foot of depth before you have to be concerned about fracturing. If you remember, we're mining at 500 feet, so in the oil patch they would say you could go to 500 psi. We only go to 100 psi. We check those pressures two times a day. We also have an extensive monitoring well program to make sure that we maintain control of the mining solution. We have two types of wells. On the exterior, we have a ring of wells and they're completed in the same formation that the mining zone is in, so that if there's any mining solution that escapes from there, we see it in the monitor well and we can adjust the hydrological bleed to pull that back. Those are sampled once every two weeks. Within the ore body itself, within the mining patters, we'll have what we call shallow monitor wells and these are completed in the overlying aquifer above the zone that we're mining, and this is to make sure we don't have any vertical movement of mining solutions to any of these zones that we don't want them to move into. We do not

have any lower monitor wells and the reason we don't is because we are underlined by the Pierre Shale and it is an extremely good, a geologic term, aquitard. Basically, water will not flow through it, so we do not have monitoring wells in that, because water won't flow through it. It's over 1,000 feet thick. This is a...kind of a cross-section, if you will, of the mining zone and, again, you can see we've got injection/production wells. Here's injection, injection/production, shallow monitor wells, and the monitor well ring. And the monitor well ring here and also the shallow wells, we're watching a number of parameters to make sure we don't have any incursions of mining solution, and these are the parameters we're watching. You can see they're color-coded. You can see that color-coding here. And as we mine, if we don't maintain that hydrologic bleed, you can see that the chemistry moves out to the monitor wells, and when it reaches that monitor well we're going to see that in our samples that we take every two weeks. And you can see there zoning. The chloride is a very mobile ion compared to the uranium. Uranium is very large and sluggish. It moves very slowly within the ground water system, whereas chloride will move very quickly. So a long time before uranium gets anywhere, we will see the chloride and the other things, like conductivity, that's associated with chloride, and the alkalinity, and we can make adjustments to the hydrologic bleed to maintain control. [LR105]

JIM STOKEY: Go ahead. [LR105]

JOHN CASH: Continue? Okay. This is our current mining status. (Coughs) Excuse me. Wyoming is importing way too much smoke, making me cough. (Laughter) It's color-coded up here. You can see the pink is the proposed mine units; yellow, mine units that are in production currently; the green is in restoration; and the red has already been restored and is in reclamation. You can also see these are in sections, square miles, and you can see the relationship of the city of Crawford to the mine that we have right here. This is the outline of the mine permit that we have with DEQ. It's roughly 2,600 acres. This is mine unit 11. It is not in production yet. Mine unit 10 just recently went into production; 8 is in production; and 6--scroll through these pretty quickly--7, 9,

those are all in production right now currently. The mine units that are in restoration: mine unit 5, 4, 3, 2; and 1 has been restored and has been signed off by DEQ and the NRC as being restored. So that's the current status of our mining progress right now. Maybe I'll turn it over to you, Jim. [LR105]

JIM STOKEY: As stated, we started production in 1991 and that year we produced 105,000 pounds; '92, 400,000 pounds; and you can see we steadily climbed to about 800,000 pounds and then that's where we've managed to maintain that. And this is a graph then of our current production and our past production. In 2006, you can see we were a little bit under 800,000 pounds and we project just to be just a bit under 800,000 for this year also. One of the things that we'd like you to understand about our process out there and our average sales, in 2005 we got $15 per pound for our product, and the average spot price for that was $29 a pound. In 2006, we now get $29 a pound...or $20 per pound for our product, and the spot price was $50. Something happened, though, in 2007. We went up to $36 per pound, but the spot price did this--It went up to $130 per pound. There's a difference between what you can sell a product for and what the spot price says it's worth, and this is pretty dramatic for us. And we know what our contracts are and we know that next year we'll sell the uranium for $57 per pound. We also predict that the spot price will either stay flat or it will go up. And right now it's trending down and we were...it's good for us, but it's also affects our...the way we pay our taxes. CBR employs 58 people and 38 of those employees are involved somehow in a community effort and they belong to over 30 organizations, and when you meet these people out there, they're very active in the community that they are associated with. It's...you need to know also that those people that work at the mine are from here. They're not from out of town. I grew up in Lewellen, Nebraska. That's the Sandhills and it's 150 miles from here. I've lived here since 1971. Most everybody at the mine is from this area right here and they graduated from this college. I believe there are two people out there right now that don't have a degree from Chadron State College in our group, and John Cash being one of them, and a new geologist that we just hired being the other. But someone has been associated with this college from day one. And I believe

there are only three people out there that aren't from this area and that aren't native to this area. So we try to keep it a very community effort at Crow Butte and a very close-knit group out there. We employ 19 full-time contractors and that includes our drillers and our...Ben Ferguson, the man who put a startup business out there and digs our pits for us; Gale Land (phonetic), Lando (phonetic) drilling, drills our...drills our wells for us and he does that with the people from the community. CBR donated $19,200 last year to the area businesses. One of the things that we did do when we had the forest fires out here in western Nebraska, Peter Kiewit corporation gave $25,000 to the Harrison Fire Department and the Chadron Fire Department. The Crawford Fire Department only received $15,000 because none of the fires were on their district. They worked just as hard as anybody else, so we managed to put $10,000 together for them and gave them that money so that it would help them out and they would get an even match then, as they from the Peter Kiewit Foundation. We also support the 4-H group. We go in and we buy...we buy beef at the end of the year when the 4-H kids sell their beef. We go in and we actually price fix there. I give one of our members $1,500; they can go in and big a cow up to where they think it is. If we get that cow, fine; if we don't, someone else will get that cow, we'll go after the second one. We usually end up with a cow or a pig or a couple chickens or something like that, but it helps that auction out very much, and so it's one of the things that we try to do. The Old West Trail Rodeo is one of the things that we support; local athletic teams, the local baseball and softball clubs; and we also have a sustainable scholarship here at Chadron State College and it will be continuing on; and we give away scholarships to the high school students that are from Chadron and Crawford. This year we were fortunate enough to have Katie vonForell, Gene vonForell's daughter, and I don't know, some of you might know Gene vonForell, I know the guys here in the front row do, but he's one of our hands that works out at the mine and she got to be part of the Manitoba Science Academy this year and she got to go to Canada and all summer long she's been up there. She's been working on bacteria that's in water somehow, and it's way beyond what I'm doing, but she'll go into here senior year this year and we provided her that experience and paid for that for her this summer. And she's done very well and we've got good reports for that. Our

payroll last year was, in 2006, was $3.4 million into Crawford and Chadron and Harrison. Payments to Nebraska businesses in 2006 was $6.8 million. And there's something I need to tell you about Crow Butte and Cameco. We have a directive that we will support area businesses, and I've always said that if we could put a piping company in Crawford, Nebraska, they'd be wealthy...and we buy a lot of pipe. We buy everything we can from Absalon's and Herren Brother's Hardware in Crawford, Nebraska; literally, everything we can get. If they can't supply it, then we come to Chadron for it. We do a lot of business out here with True Value, and we do a lot of business with the local businesses here in Chadron for lumber and things we can't get. If we can't get it there, we go to Scottsbluff. If we can't get it from Scottsbluff, we go up to Rapid City or to Casper, Wyoming. We buy all of our pumps from a Nebraska business in Omaha, Nebraska, Hydro Pump (phonetic), and all of our down-hole pumps come from there. But we try to support businesses here in Nebraska and it's one of the things that we feel is very important. Property taxes, sometimes people think that we are tax-exempt out there. We paid $672,000 in property taxes last year. State and use taxes in 2006 were $300,000 for us. Severance tax--and this is the big one and it's based off the spot price--tax in 2006, it was $545,000; this year it will cost us $1.2 million. Crow Butte Resources, Inc., in Nebraska pays $36,672 per individual in Nebraska. Those are our 58 employees. One of the things that we're...that, personally, I am really glad about and proud about this company, we have a directive and that is our...that's Jerry Grandey signing a paper, signing papers for an agreement, and this is a worldwide agreement--Swords to Plowshares. And one of the things that...and, believe me, one of the things that we...that goes on is people think that we make bombs, that we make uranium for bombs and that we're into that business. There isn't a person at that mine that would work there if that's what we did. We make, and I want to reiterate this, fuel for clean electricity. We try to help; we don't want to be a part of the other side of that. We take...our company has an agreement to take nuclear weapons or Russian missiles and bombs off the general use or out of the world market, downgrade them, blend it with our fuel, and make electricity out of them. And to this date, we've done 269 metric tons, that's 7,950 tons of low-enriched uranium, and 11,000 tons of nuclear warheads we

have eliminated from the world as we know it today. So I guess I just want you to understand that that's something that we do as part of our project out there. Another thing that we're doing is we're developing an ore body in another part of the world. One of my young engineers, Brian Pile (phonetic), who graduated from this college, is over there right now and he's one of the project engineers on this site, and it's in lower Kazakhstan. That's Russia, and that's Afghanistan right there. So it's in that section of the world. As you see, it's kind of a tough place. It's called Taikonur, and that's a little town. There's 315 people out in the middle of the desert, nine hours from nowhere. This is what it looks like out there. There's a man camp. Next are the buildings that are going in. You'll see similar sort of buildings over here at the Crawford site when we...when you visit there. This is the same structure that you'll see there. What I'd like you to know is that iron right there is being manufactured in Scottsbluff, Nebraska, by B&C Steel. We packaged that steel up right there and we shipped it to Taikonur, and that's where it's sitting on the ground in Taikonur. These are the sheets being made at B&C Steel. This is downspouts and the stuff that was going on the outside of the building. These are the sheets that were bundled, and now these three buildings right here, made by B&C Steel Company in Scottsbluff, Nebraska, are sitting on the other side of the world in Taikonur. We've put $500,000 worth of steel up over there to date. We don't, like I said, we don't...we're a part of this community. That project came out of our mine. It came out of the Denver office, which I should correct here, our head office earlier I said was in Minneapolis. It's in Denver, Colorado. Minneapolis is our sales, so excuse me for that. But that project is being developed in Denver so those pieces of steel and stuff are being bought and made right here in Nebraska and shipped over there. It's a heck of a lot cheaper to buy them in China or some place like that, but we choose not to do that. James Lovelock made this statement, and James Lovelock is with Green Peace. He said: civilization is in imminent danger and has to use nuclear--the one safe, available energy source--now or suffer the pain sooner to be inflicted by our outraged planet. We're clean. We are a clean electricity source. We make clean fuel. We control what we do. And thank you. [LR105]

SENATOR LOUDEN: Do senators have questions? One, if we do, we have to return to our seats for the microphones. Ready, Barb? Okay. Questions, I guess, for Mr. Stokey and Mr. McGuire. I guess I would ask first. When you mentioned the amount of water, that 114 gallon a minute, and that's what you use every day? [LR105]

JIM STOKEY: That's our consumptive use. [LR105]

SENATOR LOUDEN: Pardon? [LR105]

JIM STOKEY: Our consumptive use. [LR105]

SENATOR LOUDEN: Okay. [LR105]

JIM STOKEY: That's what we consume with the process. [LR105]

SENATOR LOUDEN: And that's over what length of time? [LR105]

JIM STOKEY: That's 24 hours a day. [LR105]

SENATOR LOUDEN: Twenty-four hours a day. Okay, then that ends up like 160 acre-feet or something like that for the year or somewhere along in there. Well, when you...if you do some expansion then, do you have to get a...you have to get some permit from the NRD in order to do that, or how do you offset that consumption use? You have to buy some irrigated ground or what in order to get your...in order to do any expansion? Or do you intend to do any expansion? [LR105]

JIM STOKEY: Our expansion is to the north, to the north, to the north trend permit that we've applied for with NRC and NDEQ, and that will be treated as a separate section of the mine and doesn't have, you know, it won't have anything to do with the permit area that we have right now. The flow increase that we're asking for, for the...to go to the

9,000 gpm, we will maintain that same consumptive use because we have to maintain a hydrologic bleed on the size of the mine, the way it is right now. So it may increase a little bit, but not that much. [LR105]

SENATOR LOUDEN: I see. Then you mentioned, I think you mentioned, wells anywheres from 500 to 1,200 feet deep. Now does that mean...are the 500-footers down on that Pierre Shale, too, or is that...you drill them all to Pierre Shale? [LR105]

JIM STOKEY: Yeah, and it's basically we...the Chadron Aquifer lies right above the Pierre Shale. It's basically at the same level. It's the surface contour that changes and that's why the depth of the wells vary. [LR105]

SENATOR LOUDEN: Uh-huh. [LR105]

JIM STOKEY: And we're...you...when you see that, we mine on the side of the hill over there, and as the surface contour varies then so will the depth of the wells. [LR105]

SENATOR LOUDEN: Now your Chadron Aquifer, is that...is that here when you get, as we call, a table or something, is that where that ends? Can you explain to me how the Chadron Aquifer kind of lays in this part of the country? [LR105]

JIM STOKEY: Directly above the Pierre Shale and I guess the best person to do this would be John Cash. He's the geologist that I have here. He knows exactly how that sets in here. I could have him come up here and explain that for you, if it's all right. [LR105]

SENATOR LOUDEN: Okay. Okay, then I guess my next question for you, do you, when you abandon these wells, what do you leave down there where you pump the...pump the yellow cake out or where you pump the material out? What do you leave in the place of that down there? It isn't just a vacuum spot, is it? [LR105]

JIM STOKEY: Oh, no. No, we have an approved abandonment procedure that's been approved by the Nebraska Department of Environmental Quality. We put in, when the well is determined that we'll no longer use it, we go down and put a bentonite plug in and put...so that it plugs off the screen interval, and I can't remember how many feet above that that we have to put that plug in, and then on top of that we slurry in cement. It's done in...put in by "trimy" (phonetic). In other words, you put a pipe at the bottom and then we pump cement in until we go to the surface, and once we get the cement to the surface and it holds then we're allowed then to let that cement dry. Then we're allowed to go in and dig down five feet, cut that piece of pipe off, put a cement cap on top of that, mark the well, and bury it. [LR105]

SENATOR LOUDEN: Same as oil wells. [LR105]

JIM STOKEY: Yes. [LR105]

SENATOR LOUDEN: I guess my question, though, is down there where you mined out that material clear down there, what do you leave down there? [LR105]

JIM STOKEY: It would be the screen and the blank of the well. [LR105]

SENATOR LOUDEN: Okay, you've... [LR105]

JIM STOKEY: We pull the pump, we pull the stringer and everything else. [LR105]

SENATOR LOUDEN: Yeah, but I mean you pump a slurry or something down there to fill that hole up or what? [LR105]

JIM STOKEY: Well, there is no hole that...yeah, there is no cavity or anything that's in the ground when we're done. The uranium is coating on the sands that are there and

the bicarbonate washes that off. The sands are still there. I think we figured that there was...and excuse me for just a second. [LR105]

SENATOR LOUDEN: Oh, I see, you separate the uranium from that sand down there in that aquifer. [LR105]

MARK McGUIRE: Right. [LR105]

JIM STOKEY: Yeah. [LR105]

SENATOR LOUDEN: Okay. [LR105]

JIM STOKEY: And if I remember right, my memory serves me right, it will have some signs, about an eighth of an inch. [LR105]

SENATOR LOUDEN: Okay, that's the reason you call it in situ method. [LR105]

JIM STOKEY: In situ recovery. It used to be in situ leach mining. Now the NRC has decided to call it in situ recovery, but that's what it does, it simply washes the uranium out of the sands, brings it to the surface. We strip out the uranium from the water, put the water...the barren water back in the ground, recirculate it and bring more up. [LR105]

SENATOR LOUDEN: One, how much excise tax do you pay Wyoming? You say you have that Highland Ranch or Smith Ranch or something. What's the excise tax for Wyoming for uranium? [LR105]

JIM STOKEY: I have no idea. That's the way we're organized. Power Resources, Inc., is in Denver, Colorado, and they manage us and the Highland mine. And the finances for the Highland mine I'm not up on, so I couldn't answer that for you. [LR105]

SENATOR LOUDEN: Okay. In other words, I got to find out from Colorado or find out from Wyoming. [LR105]

JIM STOKEY: Yeah. That would be a Steve Collins (phonetic) question. [LR105]

SENATOR LOUDEN: Okay. Okay, that's all the questions. Anyone else have questions for Mr. Stokey? Senator Wallman. [LR105]

SENATOR WALLMAN: Thank you, Senator Louden. Thank you. You know, as you mine this, when you get done, like Senator Louden, decommission, is there any uranium left in that solution? How do you...you get 100 percent out of that sand then or...you know what I mean? [LR105]

JIM STOKEY: We don't. We don't get 100 percent of it out and we mine it until it's economical to not mine anymore, and then we go back in. And to start the mining you have to introduce oxygen into the aquifer. To stop the mining, you have to just remove oxygen from the aquifer, so we introduce an reductant. We wash...take out our mining solution, we introduce a reductant and that stops the mining process. Once that mining process is stopped, we make sure that the ground water is clean, it meets all of the baseline monitoring samples that we had taken previous to mining, and then, after we get that, we go into a six-month stabilization...at least a six-month stabilization to know that the aquifer has become stable. And after that, then the NRC and the DEQ, the Nebraska DEQ, will take a look at those samples that we pull on that aquifer to determine if we've cleaned it up and that it has met their requirements for abandonment. And then they allow us to then abandon that, so... [LR105]

MARK McGUIRE: (Inaudible) point it's determined to be restored. [LR105]

JIM STOKEY: Yeah. Excuse me. And I guess the term then, at that point it's restored.

It's a restored aquifer. And mine unit 1, by the way, is a restored aquifer. It was the first in, I believe, the first one in the United States that was done and we were able to do it. [LR105]

SENATOR WALLMAN: See, I live in a district where they actually decommissioned a nuclear power plant. [LR105]

JIM STOKEY: Oh, yeah? [LR105]

SENATOR WALLMAN: Hallam, remember? It...and so I'm kind of, you know, but I'm for clean energy, don't get me wrong. [LR105]

JIM STOKEY: Yeah. [LR105]

SENATOR WALLMAN: Yeah. And then also on the recyclable side, you know, we paid a huge fine in this state for a nuclear waste dump and do you think that the, you know, like consumers are going to pay eventually, but how much of that fuel rod, when you put that...you put the cake in the fuel rods, right? [LR105]

JIM STOKEY: We don't. [LR105]

SENATOR WALLMAN: I mean your company does? [LR105]

JIM STOKEY: Yes, at Port Hope. [LR105]

SENATOR WALLMAN: How much of that is actually used up by a nuclear power plant then of that fuel rod? [LR105]

JIM STOKEY: The rod itself? [LR105]

SENATOR WALLMAN: Yeah. [LR105]

JIM STOKEY: I have...I...that's more than I know. It's beyond my scope. [LR105]

SENATOR WALLMAN: Okay. Well, appreciate it. Thanks. Thanks, Jim. [LR105]

SENATOR LOUDEN: Other questions? Senator Hudkins. [LR105]

SENATOR HUDKINS: I have two questions. How did you find the uranium deposits originally? [LR105]

JIM STOKEY: Originally? There were a group of gentleman geologists and engineers that were looking at oil well logs that were drilled in the Panhandle in Nebraska, and they noticed then an increase in...I believe it was probably either gamma or something like that, at that level, and they "wildcatted" this well in...or this mine. [LR105]

SENATOR HUDKINS: Okay. Thank you. And then the other question: We heard in testimony earlier that there have been a number of leaks and spills. What do you say about that? [LR105]

JIM STOKEY: The leaks that we report, that we reported, as were brought out on the ponds, the way the ponds are made is that we have a...and I don't know how thick the liner is on top, 50 mil HDPE liner, separated by a mesh membrane, and then below that there's another 50 mil liner. So we have double containment on the pond. Periodically, because of the exposure to the elements and exposure to the sunlight or something will blow in there, we'll get a small puncture in that upper confinement. It will leak into the center, which we monitor and we take samples on that daily and...to find out if there's anything going on there. We watch...we have a series of tubes that are down in between the two liners at the bottom and a sand bearing area down there so that if we see that level starting to come up or if we see a change in the chemistry of the water

that's in that area, we know that there's...that there's probably a leak in the upper liner. As soon as we detect that, we lower the pond below that leak and stop it. Then we get Colorado liners to come in, take a look at the lining, find the leak, repair it, and then we can bring it back up. We always catch it, though, when (inaudible). The leaks that we're talking about are line pin holes. One of them was leaking like, at one time, like ten gallons per like a week or something like that, but we found it. We find those. Oh yeah, and the other thing is that we always self-report. We...if we find anything that goes wrong out there, we, within 24 hours, call the NDEQ and the NRC and report it ourselves. We don't hide anything. [LR105]

SENATOR HUDKINS: Okay. Thank you. [LR105]

SENATOR LOUDEN: Senator Fischer. [LR105]

SENATOR FISCHER: Thank you, Chairman Louden. So you're saying that the leaks have just been on the first liner, it hasn't gone through to the second liner and it hasn't gone into the soils, into the ground water. [LR105]

JIM STOKEY: Yeah, and we have monitor wells around that, a ring of monitor wells around our ponds. [LR105]

SENATOR FISCHER: It was brought up in previous testimony that there was 300,000 gallons spilled and two-thirds was recovered, I think that was it, and the rest went to a sacrifice area. Do you have any knowledge of anything like that, or a comment? [LR105]

JIM STOKEY: Yeah. And Rhonda and John will help me with this one, but the...during normal operations of the mine we have piping that's out on the surface and we have piping that's above the surface that are in the well heads. Because of age or movement or freezing or something, every now and then we'll have a flange or something that will break or crack, and that water will leak. It's injection water, typically, or production water.

It's very low in uranium. And any chemical that we have out there, it's very low in that. If we do have a leak and it goes to the surface, we go out and we try to recover as much of it as we can. If...and Rhonda surveys every one of the leaks and if there is a ground contaminated there, if it's above a certain level, we would remove that dirt and we would send it to Blind River...or not Blind River, excuse me, Pathfinder in Wyoming--it's a lot of names; I can't remember them all--and that's a low-level...or...not a low-level, but a disposal site for waste, and we can send it there, which we do. And we survey every one of the areas that is...has any water that's spilled onto it. And the end of the day, when we go back and reclaim the mine, we'll go back and measure the levels of contamination, if any, on those sites. A lot of those have none. We can't...there isn't any detectable level after there's been a leak, and so...but they're very minimal. We catch them, but there have been a few of them over the years and so... [LR105]

SENATOR FISCHER: You started mining in 1991. Is that correct? [LR105]

JIM STOKEY: Yes. [LR105]

SENATOR FISCHER: On the map you showed, there were I don't know how many...how many sites within your boundaries that were yellow that, that you were currently mining; one site that has been restored, which I understand it's capped, you are no longer mining; two or three that were in the process, restoration, I believe, was the term. So over 16 years you've capped one mine, if that's the right terminology,... [LR105]

JIM STOKEY: Mine unit. [LR105]

SENATOR FISCHER: ...you're in the process of capping, or whatever, three, three or four other ones. How long before your entire site then within those boundaries is done, you're done mining in that area? [LR105]

JIM STOKEY: The way it works is mine unit 1 has been restored and we've removed all the equipment. [LR105]

SENATOR FISCHER: Right. [LR105]

JIM STOKEY: Mine unit 2 is in stabilization. Right now we're watching the ground water to see if we've got it stabilized. We've restored the ground water, we think, and if...we're watching the chemistry of the ground water to make sure that it's stabilized. Mine units 3, 4, and 5 now are those that are in ground water treatment, and 5 just went in last Monday and... [LR105]

SENATOR FISCHER: Which all of those, you're saying, have no more...or it's not cost-effective to mine for uranium in those. Okay. [LR105]

JIM STOKEY: We've essentially mined them out... [LR105]

SENATOR FISCHER: Okay. [LR105]

JIM STOKEY: ...to a lower grade level. Mining units are small. How many square feet, John? [LR105]

JOHN CASH: A mine unit may be about 10,000 square feet or a well pattern may be 10,000 square feet, and may have 30 patterns. [LR105]

SENATOR FISCHER: With the out...in your pattern that you have with them out and one in the middle. [LR105]

JOHN CASH: A mine unit may be 100 acres. [LR105]

JIM STOKEY: And we have 10 of those, or 11 of those, excuse me. But mine unit 1 is

very small, mine unit 2 is larger, and you saw that they grew (inaudible) grew in size. [LR105]

SENATOR FISCHER: But to look into the future, how long do you think before you've...where it's cost-effective to mine uranium in the Crow Butte area and you'll be done? [LR105]

JIM STOKEY: Boy. If the price holds, it will be awhile. You know, it's... [LR105]

SENATOR FISCHER: Oh, you have to have a projection, a plan. [LR105]

JIM STOKEY: Well, we...the last well house that we build is going to be in...and this is just a guess, okay, but 2012 will be the, you know, be the last one that we build. I don't know how long it will mine and, you know, it will mine for quite awhile. And so the life of the mine could go on for a few more years, other than that. [LR105]

SENATOR FISCHER: The area then when you're finished mining and it's been restored and...do you plan or do you have to hold on to that land then? Are you responsible? Can it be sold to ranchers? Can it...or is it off-limits? [LR105]

JIM STOKEY: We lease part of the land and that land will just simply go back to the owners, the Stetson (phonetic) family. [LR105]

SENATOR FISCHER: How many acres was on that site, 2,000? [LR105]

JIM STOKEY: Twenty-five hundred I believe is about... [LR105]

SENATOR FISCHER: Twenty-five hundred? So you lease some of that now. You don't own it all within the boundaries that you had on the map, the boundary line? You don't own that? [LR105]

JIM STOKEY: Yes, we own part of it. We own...and I don't know how many acres that we own, but it's very...a very small amount of that. [LR105]

SENATOR FISCHER: Out of the 2,500. [LR105]

JIM STOKEY: Yeah, we own the...yeah, a couple hundred. [LR105]

SENATOR FISCHER: A couple hundred acres out of the 2,500. [LR105]

JIM STOKEY: Yes. And we have a bond, though, that's a cash bond and it's with, I believe, NDEQ or the state. [LR105]

MARK McGUIRE: With DEQ. [LR105]

JIM STOKEY: DEQ, and that, I think, was $22 million last year and that's in place. If we walk away from this, that money is there to go ahead and recover or reclaim that land and restore that. [LR105]

SENATOR FISCHER: If you...when you say there's a bond, that's if you walk away without your company restoring the wells, correct? [LR105]

JIM STOKEY: Uh-huh, yes. That's right. And we... [LR105]

SENATOR FISCHER: I would doubt you would do that. [LR105]

JIM STOKEY: No. [LR105]

MARK McGUIRE: Right. [LR105]

JIM STOKEY: We will not. And that's updated every year and it's reviewed by the NDEQ and the NRC, and they approve that bond. [LR105]

SENATOR FISCHER: Do you have plans for any other mines in the state? You don't have to tell me your business secrets. I'm just...I mean, really, you don't, but I'm just curious if you do, so... [LR105]

JIM STOKEY: No, we've...applied for an expansion to the North Trend area north of Crawford. We know that our ore body trends up that way and that's what we would like to do now. One of the things that we would like to do is continue doing business in western Nebraska. We've made a significant impact to this area as far as economic development is concerned, and we'd like to continue that. And to maintain our 800,000 pounds per year, as our main ore body right now starts to wane, we need to prop that back up. That's what the North Trend area will do, and it will continue mining and continue providing those people with a livelihood. [LR105]

SENATOR FISCHER: Do...and I appreciate that. Do you mostly mine in, I guess, harder soils? Not to offend anybody. I'm from the Sandhills. We call this gumbo up here. So you mine more in harder soils with the shale and...rather than in like my area of the state, the Sandhills? Is that...is that where you find uranium? [LR105]

JIM STOKEY: I've always thought that we'd find uranium. We always need gravel in this area, so if you find gravel we'll probably find uranium under it, so we can't have the gravel. [LR105]

SENATOR FISCHER: Sandhills should be loaded then maybe? [LR105]

JIM STOKEY: Yeah. Or you'll find it under a park or a wetland area. But that seems to be where we find a lot of stuff. But, no, it's basically old ancient streambeds is where we find it, and that's how we've managed to do that. We drill into that streambed and then

we just simply follow it with exploration drilling. But it's always difficult. [LR105]

SENATOR FISCHER: Okay. Thank you very much. [LR105]

JIM STOKEY: Thank you. [LR105]

SENATOR FISCHER: Look forward to the tour. [LR105]

JIM STOKEY: I should...there's one thing I should mention too. There's over 1,600 wells or 1,600 pivots, I believe, in the area here that's under Lyndon Vogt's control. And we, at the mine, we use about as...am I right? Larry was telling me that. [LR105]

LYNDON VOGT: You're close. There's about 2,300. [LR105]

JIM STOKEY: 2,300? Okay. And our mine, and to reiterate this, our mine uses, we consume as much water as one of those and we provide 58 people a job. [LR105]

SENATOR FISCHER: Total mine. [LR105]

JIM STOKEY: Yeah. [LR105]

SENATOR FISCHER: The total area. [LR105]

JIM STOKEY: Total mining, our own operation consumes that amount of water, and we provide 58 people a job out of that. One center pivot of corn does that. [LR105]

SENATOR FISCHER: Well, we love corn. Thank you. [LR105]

JIM STOKEY: (Laugh) Yeah, I know. I'm from the same place. [LR105]

SENATOR LOUDEN: Other questions? Well, seeing none, I guess thank you for testifying and thank you for the PowerPoint. [LR105]

MARK McGUIRE: Thank you. [LR105]

JIM STOKEY: You know, I taught at this school for 18 years and I don't know a time when I've been this nervous, and thank you. (Laughter) [LR105]

SENATOR FISCHER: Just wait till this afternoon. [LR105]

JIM STOKEY: I know. Thank you very much. (Laughter) Thank you very much for letting us do this. [LR105]

SENATOR LOUDEN: Thank you. Okay, is...I guess is there other testifiers for LR105? (See also Exhibit 11.) If not, this concludes our hearing and our interim study on LR105 and we'll adjourn for lunch. [LR105]